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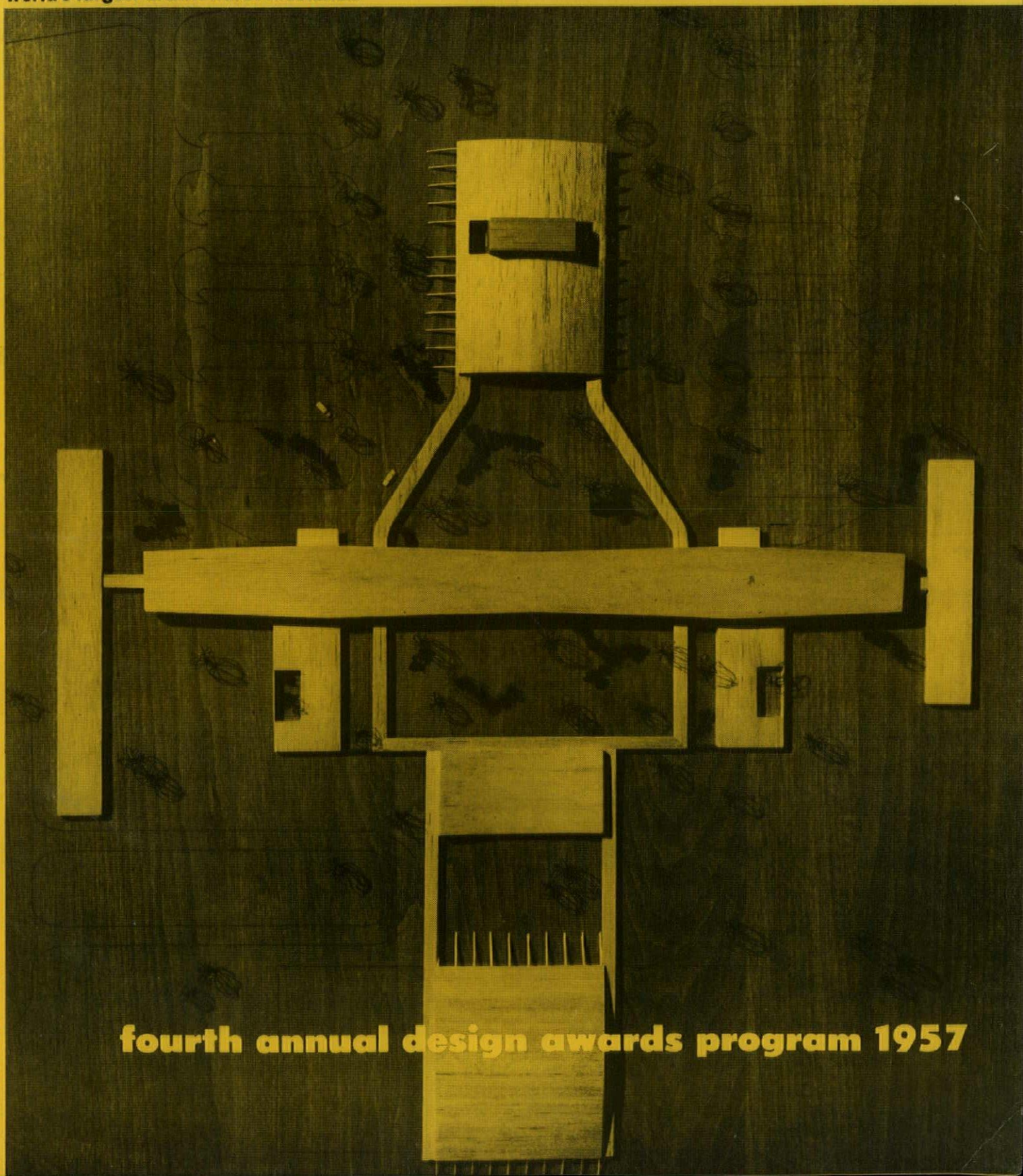
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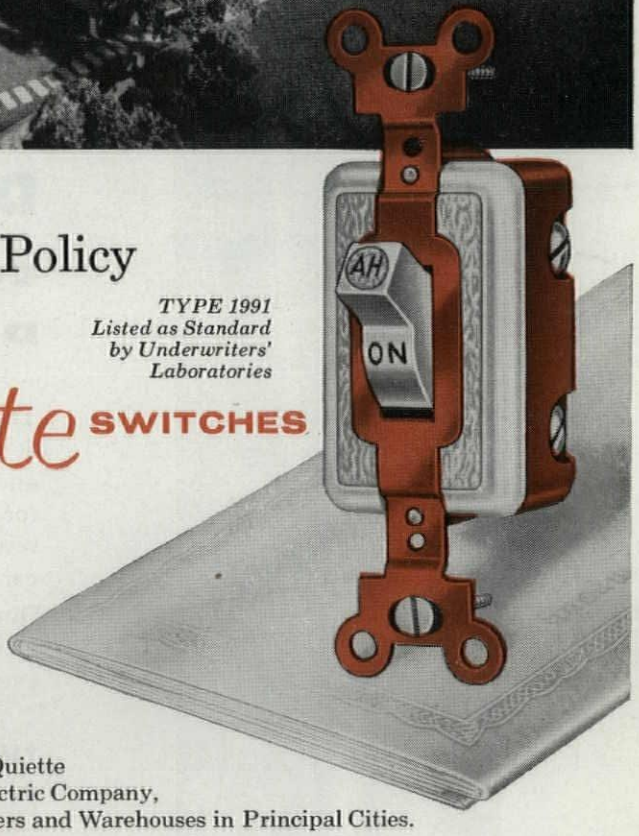


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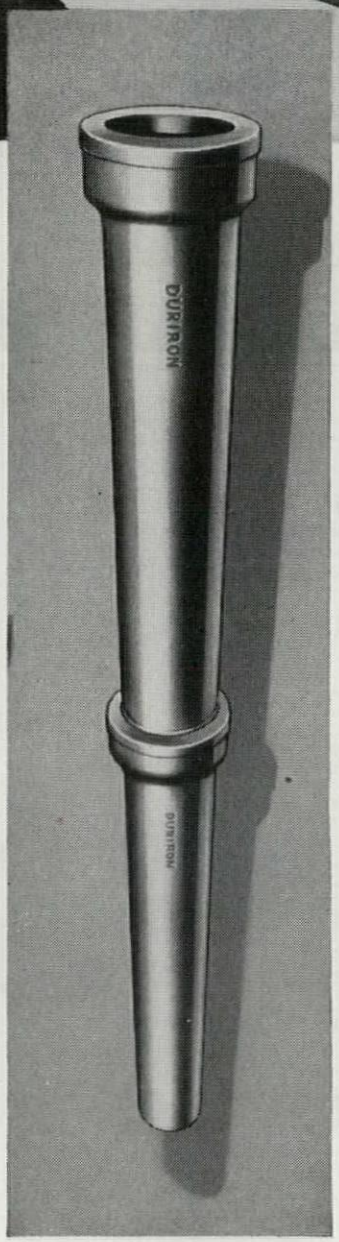
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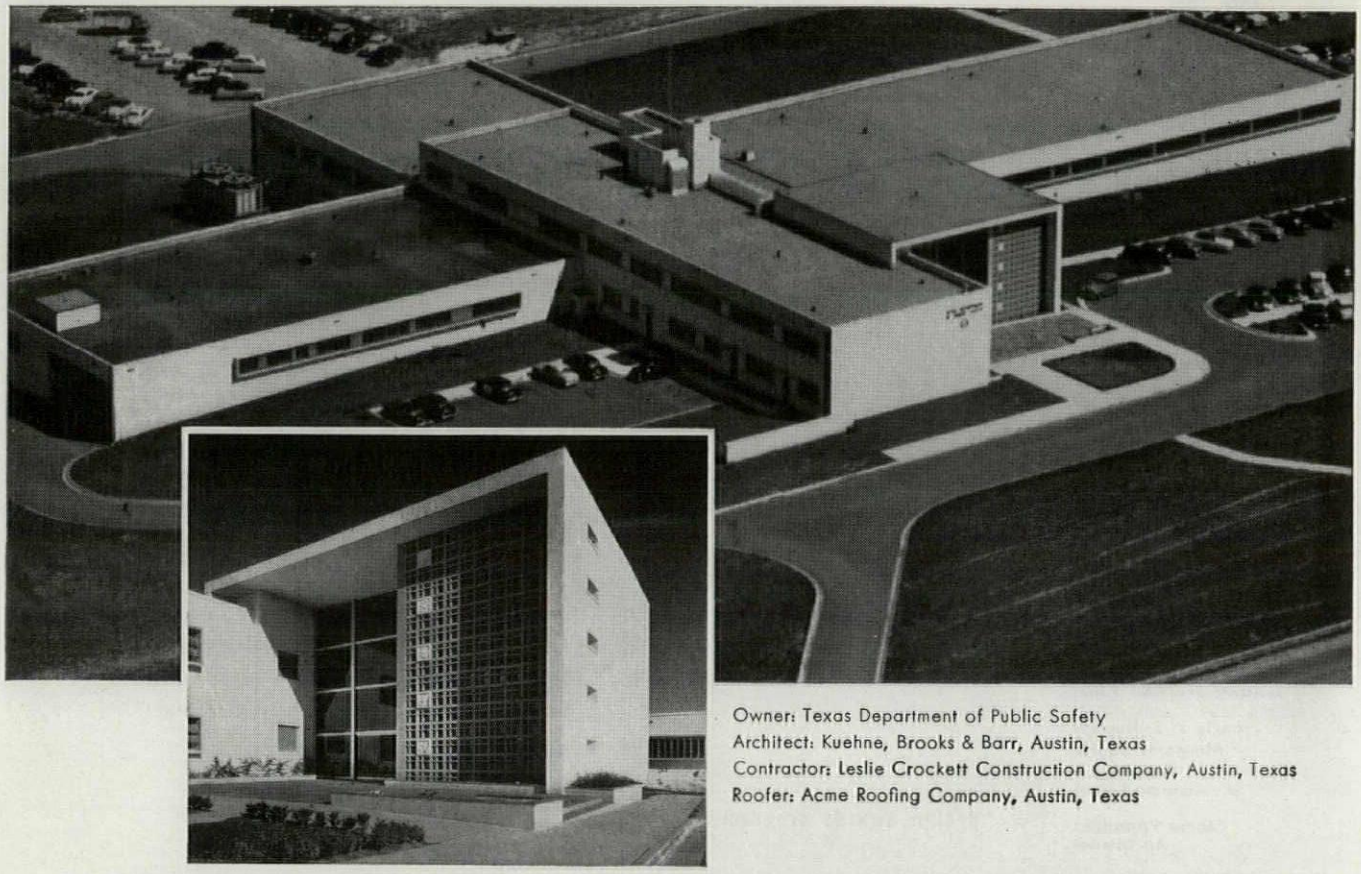
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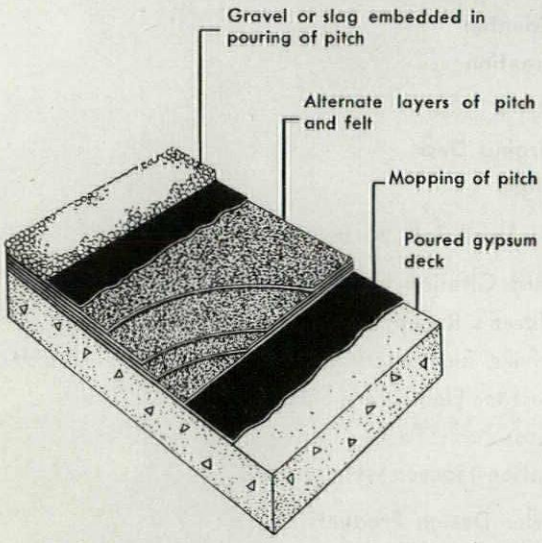
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It's the Law *by Bernard Tomson*

P/A Office Practice *article discussing the Architect's Potential Liability in Damages for injuries sustained in his buildings.*

If an Owner accepts a building which is so designed as to create a hazardous condition for third parties using it, can the Architect be held liable in damages for injuries suffered by such third persons?

The Appellate Division of the Supreme Court has answered this question in a disturbing affirmative in a recent decision *(Inman* v. *Binghamton Housing Authority*, 152 N.Y.S. 2d 79) and, by so doing, has greatly extended the area of the Architect's potential liability.

The liability of an Architect for negligence in the performance of his professional services has been considered by this column in relation to the type of architectural-liability insurance available *(January 1949 P/A)*, the Architect's liability for underestimation of costs *(February 1949 P/A)* and liability of the Architect to the Owner for negligence *(May 1949 P/A)*. As was pointed out in those columns "the legal yardstick which measures adequacy of the Architect's performance . . . is based upon a determination as to whether the Architect possessed and exercised that degree of skill and care which should be reasonably possessed and exercised in the profession."

Prior to the recent decision of the New York Court, the liability of an Architect for negligent or improper design to persons with whom he has no relationship or "privity" has been narrowly confined. The established past rule of liability can be summarized as follows:

"With respect to the Architect's liability to third persons for damages sustained by them owing to defective construction, it has been held that his responsibility is like that of the Contractor. After the work has been completed and accepted by the Owner, the negligence of the Architect will not render him liable to third persons injured as a result. Once the building is accepted by the Owner, it has been said, he is responsible for damages subsequently suffered by third persons, whether such damages are attributable to his own negligence or that of the Architect or the Contractor." (Tomson, *Architectural & Engineering Law*, p. 329)

However, the recent decision of the New York Appellate Division departs from past precedent and rejects the legal necessity for a relationship or "privity" between the party injured and the Architect as a basis for legal liability. In this case, a child of a tenant in an apartment building fell from the back steps or porch of the building. The parents sued the Owner, the Builder, and the Architect. The Tenant alleged in his complaint that the porch was so improperly designed and constructed that it created a dangerous and hazardous condition for the users thereof, particularly children. The Architect and the Builder raised the usual defense of "lack of privity" between themselves and the Tenant. The lower court, in keeping with the seemingly settled law, ruled in favor of the Builder and the Architect.

On appeal, however, the Appellate Division reversed the holding of the lower court, ruling that the Architect and Builder cannot escape liability because of lack of privity between them and the injured party. The Court, in so holding, admitted that it was going further than prior cases, but argued that "the trend of modern legal scholarship" appeared to sustain its view.

The Court pointed out that where, for example, a defendant contractor negligently constructed a roof and gutters so that an icy condition was caused to occur on the steps of a building, the Contractor could not be held liable after acceptance of the building by the Owner because there was an intervening cause which created the dangerous condition and the condition was such that "it lay easily in the power of the Owner . . . to take . . . steps to render it harmless." In the case before it, however, the Court argued that the situation was different. The Court stated:

"Here the Architects are charged with designing a dangerously defective porch and the Builder with erecting it. Clearly, if the allegations against the Architects are taken at their face value, as we must do at this stage of the case, they cannot escape liability unless the lack of privity between them and the infant plaintiff exonerates them as a matter of law. It could hardly be assumed that the Architects could rely upon a belief that the Owner would reconstruct the porch or otherwise remedy a dangerous condition which they had designed."

The Court further contended that the designer of personal property was, under the precedents of the law, liable for an improper or negligent design and that there was no valid ground for a different rule when the design of real property was involved. The Court pointed out that it had been ruled that a Contractor who built a defective movable scaffold was liable to third persons with whom he had no privity and compared that situation with the improper design of a porch. The Court stated:

"The scaffold was not an inherently destructive instrument and became so only when imperfectly constructed. Although it was merely a chattel it was nevertheless used in a building operation, and the analogy between that situation and the porch involved in this complaint appears striking to us. True, a porch ordinarily is not as dangerous to use as a scaffold, but it may be dangerous if improperly designed and constructed. The difference is merely one of degree so far as danger is concerned, and we can see no logic in the assertion that because one is affixed to real estate and the other is a movable chattel that there must be a difference in principle so far as liability to third persons is concerned. We think the common viewpoint is that such a distinction has become outmoded in our complex and highly industrialized society. The imminence of danger should be the test and not the classification of the object from which the danger emanates."

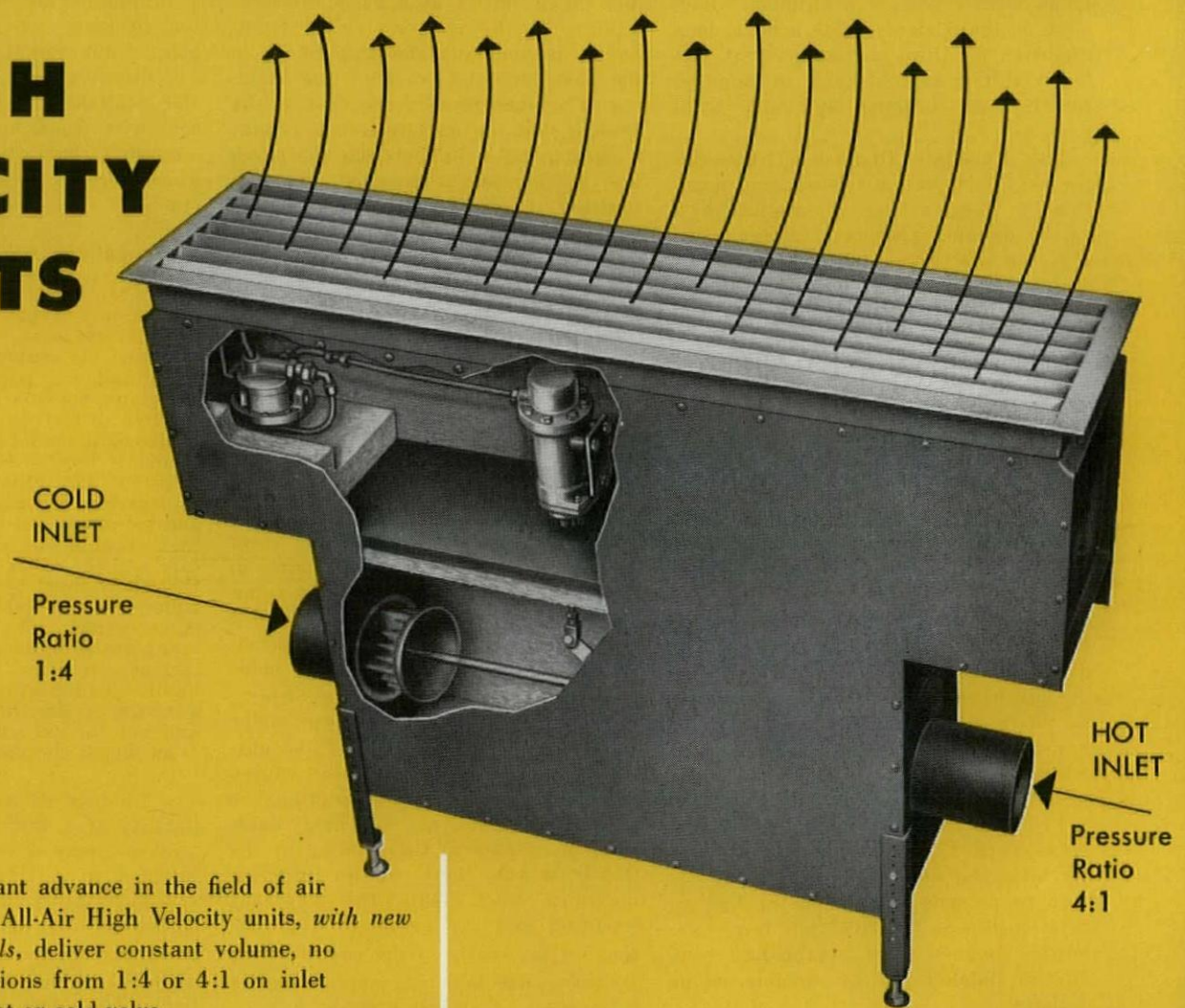
The liability of an Architect and the liability of a Builder to third persons, however, may differ. If the Builder is justified in relying on the plans and specifications of the Architect, the Architect may be held to be alone liable. However, if the defect of design is apparent, then the Builder will also be liable. The Court, in discussing the relative liabilities of the Architect and Builder, stated:

"The Builder is in a somewhat different position than the Architects. He is justified in relying on plans and specifications which he has contracted to follow unless they are so apparently defective that a Builder of ordinary prudence would be put on notice that to follow them would create a dangerous situation." (p. 83)

The *Inman* case is presently on appeal to the Court of Appeals of New York. This column will report when it is decided.

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Mechanical Engineering Critique *by William J. McGuinness*

P/A Office Practice *column on mechanical and electrical design in architecture is devoted this month to the subject, Easier Sizing of Residential Cooling Units.*

This subject is selected for discussion from a comprehensive study and report on the qualities and performance of reflective and reflective-surfaced insulation. The report includes charts for the speedy selection of cooling and heating units for residences in all parts of the United States and for finding the estimated yearly heating and cooling costs for standard houses under all climatic conditions. The Aluminum Company of America sponsored a program of research and has published the results in a booklet, "Comfort Everybody can Afford." The section dealing with the choice of cooling-unit size is quite new and will be of interest to architects, owners, and builders. It is described below with reference to the chart shown (*see page* 9). The program in general turned up a number of facts which will be found useful in thermal planning.

the program

The National Bureau of Standards, Washington, D.C., and the Pennsylvania State University, University Park, Pennsylvania, collaborated in the research. Information about reflective insulation and about heating and cooling was established or verified. The National Bureau of Standards made heat-transfer experiments with bulk insulation enclosed in aluminum surfaces. This material was subjected to heat flow at various angles, vertically—both up and down, as well as horizontally. The results are published in a new BMS report available from the Superintendent of Documents, Washington, D.C. Its title is "Thermal Insulating Effect of Reflecting Surfaces Bounding Air Spaces and Fibrous Insulations." At Penn State, heat losses and gains in rooms were studied. A large-scale heat chamber simulated conditions in a house. The work inculded 31 summer-type attic tests. New findings are mostly in this phase of the work. Conclusions from the Penn State report are the basis for the costs of installing and operating heating and cooling systems and they fixed the method of choosing the size of these systems.

reflective insulation

Because insulation in general is now almost universally used, it is important that it be used well. About 90 percent of new houses now receive insulation. In 1940 this figure was 25 percent. Moreover, air-cell reflective insulation has been somewhat misunderstood and sometimes incorrectly installed. In the case of aluminum-surfaced batt insulation, the value of the shiny surface has not always been correctly appraised. In 1931 the ASHVE stated that radiation is a major factor in heat loss in winter and heat gain in summer for any construction involving air spaces. Analysis indicates that this portion of the heat flow is 60 to 70 percent of the total with lesser values for flow by conduction and convection. Verification of this was made in recent tests at the "Air Conditioned Village" in Texas where it was found that power ventilation of attic spaces in summer did little to relieve the heat gain which was thought to be largely by radiation across the air space. Aluminum foil should, of course, face the air space and is of little or no value in contact with the upper surface of the ceiling. In winter, aluminum foil will emit by radiation only 15 percent compared to 95 percent by other coverings. Conversely, in summer, the shiny surface turns back 95 percent of the radiant energy it receives; other common surfaces turning back only 15 percent. Edge tightness is most important in the installation of the air-cell type of reflecting insulation which depends on air spaces instead of fibrous filling. The preservation of the spaces against collapse is also imperative. This kind of insulation should be placed only after the completion of piping and conduits. It must be checked and taped at all minor openings just before the installation of lath.

heating and cooling

A 1200 sq ft house can be heated and cooled for about $12 per month. This was one of the findings of the research. It is average for the United States. Obviously, careful orientation and complete insulative measures are necessary to accomplish this. Allowing a standard house to face in whatever direction may be determined by a lot is one of the greatest reasons for excessive heating and cooling costs in builder-planned homes. Glass must be placed to pick up winter sun and to be shaded in summer. Much south glass with correct overhang and no glass on the west are the two most important rules. In fully insulated attics, 25 percent of the heat loss in winter is through the roof. Similar construction admits 30 percent of the summer heat gain through the roof. It is seen that roof planning is more important for summer than for winter. A flat statement of probable cost per month for heating and cooling presupposes a certain type of house. Similarly, a chart for the selection of an air-conditioning unit size must relate to a specified kind of house.

house type

The chart shown (*page* 9) and other charts in the report which relate to costs and size are based on the following assumptions:

1. One story, ranch type, ratio of length to width 1.6 to 1.
2. Window area 20 percent of total wall.
3. Of total glass, 50 percent on south, 25 percent north, and 25 percent divided between east and west.
4. Windows double glazed, shaded from within.
5. Infiltration for heating, one air change per hr; for cooling one-half change per hr.
6. Warm-air system with air conditioning added. Furnace efficiency 75 percent.
7. Full basement, heat loss from which is included in heating load.

tonnage

Applying to the house just described, the accompanying chart is used in four steps to find the size of an air conditioner required and the ratio of its average load during 24 hrs to the capacity of the unit. The latter is required to look up operating cost (not treated here).

Step 1. Connect the "U" factor for the walls with the "U" factor for the ceiling.

Step 2. From the point where this first line crosses the house floor area, draw a line to the right to intersect the sloping line which identifies the daily temperature range in the geographic location. These ranges are given in the report or may be found in the ASHAE "Guide."

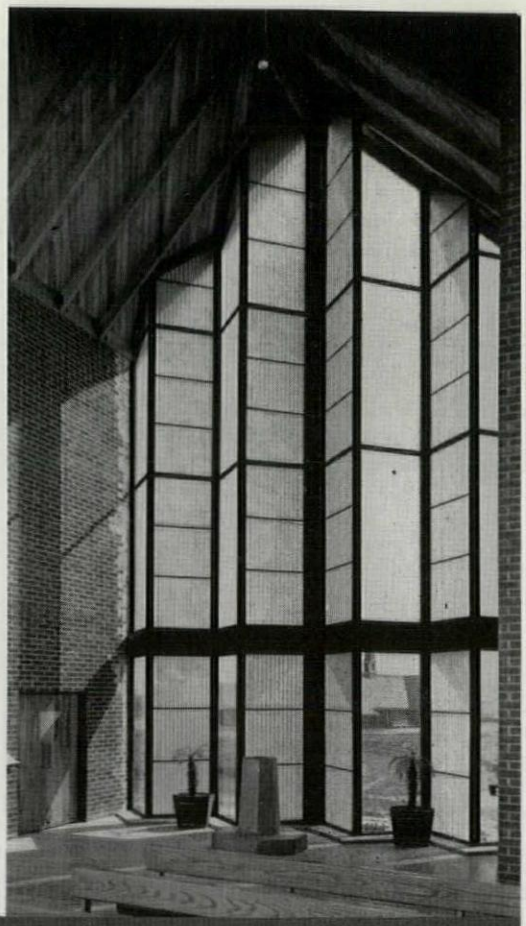
Step 3. Draw a line vertically down to the floor area in the third box.

Step 4. Draw a line horizontally to the left to intersect one of the four boxes that represent the chosen temperature differentials between inside and outside air. The tonnage is indicated and also the percentage of this tonnage which operates at average load.

For this 1200 sq ft house in a region of low daily temperature variation (Norfolk, Va., New York, N. Y., and most coastal cities), a 3-ton unit is required and at average cooling it will operate at .85 (85 percent) of its rated capacity of 3 tons of refrigeration.

(Continued on page 9)

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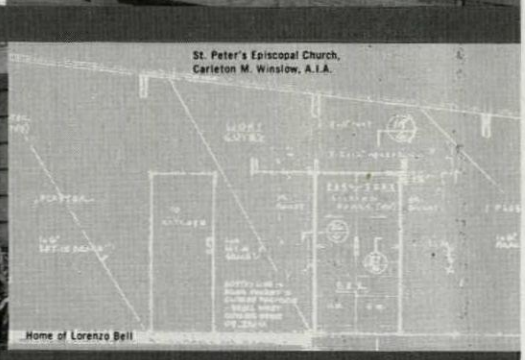


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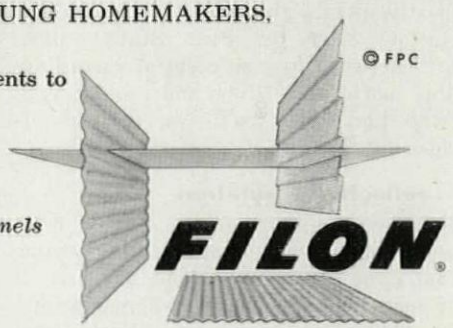
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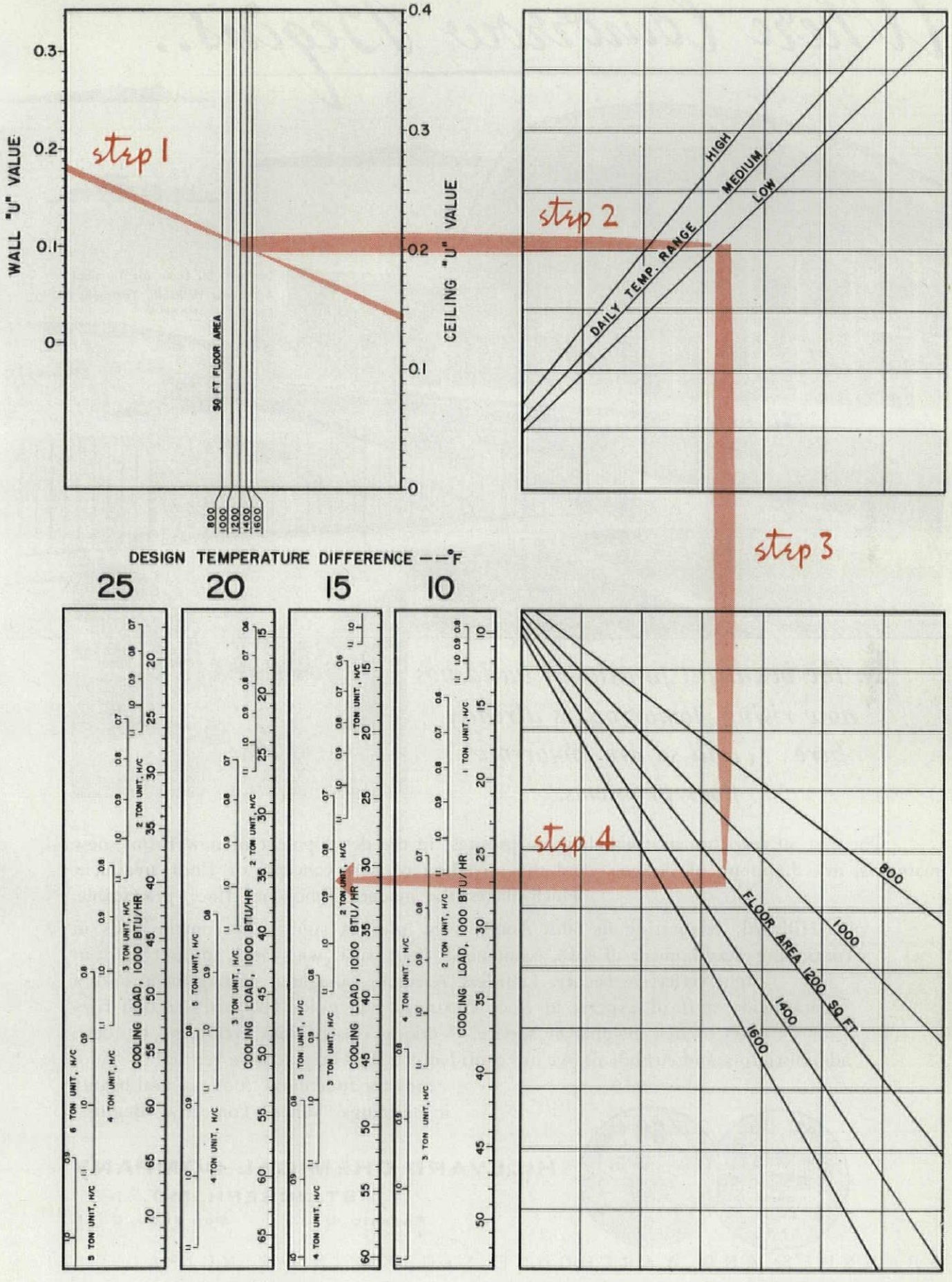


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Mechanical Engineering Critique



Alcoa Cooling Chart

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How to Give A Speech *by L. A. Keating*

"Anyone can give a good speech who wants to and who has something to say," declares Prof. Lynn Surles, Director of Business and Professional Speaking at Marquette University, Milwaukee. Therefore, unaccustomed to public speaking as you probably are, if you'll make use of a few basic techniques you should be able to acquit yourself well the next time you have to "talk on your feet."

You will be nervous, of course. Even speakers of long experience perspire, fidget, and shake before they get under way. But the more you prepare in advance, the less nervous you'll be; and there are ways to combat nervousness.

"First, understand nervousness," urges Professor Surles. "It is nature's way of keying you up to meet a challenge. You can get the upper hand on nervousness in two ways: by relaxation and by taking plenty of time. There is a psychological help, too. While the chairman is introducing you and you wish you were home in bed, say to yourself, 'well, they're asking for this. So let the audience be nervous!' "

When your name is called, rise from your place as relaxed as possible. Take plenty of time. On the platform, as you look over your audience, think about relaxing—your neck, your shoulders, your arms. See to it that your hands are limp on the podium. *Stand there taking plenty of time.* Your audience will wait. As you realize how patient and expectant they are, you gain confidence. Confidence erases tension.

When you are sure you are ready to begin, state your opening line and pause. Say another line. Pause. Look around. These pauses will calm you, and they are dramatically effective in gripping your hearers' attention. Actually, the pause is as effective as the words you speak. As you make successive statements you will pick up speed and confidence, and as you notice the attentiveness given you, nervousness is forgotten.

Here is a trick about looking at your audience. It's dangerous to pick out individuals and watch their faces to see how you're doing. Shun this! Do not see *anyone* individually. As you talk, slowly sweep your gaze along the last two rows of the audience from one side of the hall to the other. Then slowly sweep back. Keep doing that, and every person facing you will believe you are looking at him.

Start in low gear, offering earnestness and sincerity. Your enthusiasm will rise and carry you to the needed heights in good time. Remember, you make greatest impact with earnest understatement followed by a pause. Never yield to excited exaggeration.

Gestures? Don't push them or experiment or imitate. Just do what comes naturally.

Now let's go back to preparation of your speech—because an audience worth talking to is worth doing your best for. Never read your speech: that puts people to sleep. Of course you may have to read brief technical passages or quotations, but reading takes your attention away from your listeners. Never memorize your speech, because if you forget a line you might be headed for disaster.

The best approach is to know *what* you want to say. When the time comes, you'll find the words for saying it. Jot down on a card or sheet of paper the list of topics you want to cover. Be sure their sequence is logical and effective. Place your card on the podium where you can see it but your audience can't. Discuss your first subject and stop. Take up your next item. When you have discussed your final point, wait four or five seconds, then leave the podium.

What if someone heckles you? It's risky to attempt to outwit a heckler; you may lose and look foolish. Instead, take a step or two his way and gaze at him in silence. Then turn back and resume your talk.

"Use all the anecdotes you can to illustrate the points you wish to make," Professor Surles advises. "Anecdotes reveal people in situations and audiences love them. Ninety percent example material and ten percent your own opinion will hold listener interest. Later, people will forget your assertions but remember your anecdotes. Get used to saying, 'When this point came up at another meeting—'or, 'Here's a case I encountered—' or, 'Let me illustrate with an experience I had.' "

To sum up: prepare your speech by making a list of subjects you can jot down on a small card. If possible, give the speech once or twice to an empty room. When the chairman introduces you, fight nervousness with deliberation. Speak slowly, with frequent pauses. Look at the mass of faces, never at individuals. When you have finished what you planned, never repeat or re-emphasize or go on. Wait a few seconds, then return to your seat.

Should you be called upon with little or no warning, use this threepoint formula, which is sure-fire if you know your field:

1. Stand up, relaxed, and say, "Gentlemen, here is how this matter seems to me." Or, "Here is the point I wish to make." State in one sentence, or as concisely as possible, the idea you wish to put across.

2. Next, say, "Let me give you an example." Relate an apt anecdote in your best story-telling manner. Name your characters. Quote them. Keep it brief.

3. Lastly, say, "Here is what I believe we should do." State your proposal in simple terms. Remain standing three or four seconds; the silence will help you drive your point home. Go back to your seat.

Or say you are called upon unexpectedly and you are puzzled what to tell this group. In the moments you have to think, ask yourself: *How can I help them?* The answer is what you should talk about.

So, next time you hear a chairman say those fateful words, "It now gives me great pleasure to introduce—" and mentions your name, why worry about being nervous? It's as inevitable as taxes, but you can control it by trying to relax and above all, by taking plenty . . . of . . . time.

Remember, the boys must want you to talk. They're asking you, aren't they?

Editor's Note—*As one who has often felt that he "shoulda stood in bed," I agree with most of Keating's and Surles' points, but not all. I find, for example, that it is easier to look at individuals in the audience rather than "dangerous." And I believe that reliance on anecdotes can be overdone. They are helpful, even necessary, but 90% is too high a ratio!* T.H.C.



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*Architecture–Art or Design?**

by Sibyl Moholy-Nagy

Every country has an official and a vernacular architecture. Rural buildings, responding to a personal need and to specific environmental conditions, are the realm of the spontaneous builder who works according to instinct and the traditions of his trade. But the realm of official architecture is that of the architect. He is outside the area of innocence. With Alberti, he must accept *"the house as a public function"* inspired and shaped by an intellectual concept that animates and supersedes matter, structure, and individual purpose. None can be of any service to the cause of architecture who does not have the courage to define this concept precisely and honestly. His work must testify to what he believes and what he rejects. This position can change over a lifetime. The young architect can start as a Harvard man who would not even stop for gas in New Haven, or he can end up in Taliesin without having set foot on Lake Shore Drive. He can have intermittent attacks of Bay Regionalism, Bauhaus, or Geodesic Schizophrenia. But whenever he commits himself to an architectural statement on the drafting board or the typewriter, he must work by the light of an idea. As with all lights, its brilliance will depend on the intensity with which it contrasts to the surrounding mediocrity. One of these causal ideas is the interpretation of Art and Design in Architecture; in fact it seems that this idea is of the greatest urgency today because for more than a generation it was considered nonexistent. Art and Design were treated as synonymous terms, with Design leading Art as the first premise of Architecture. It is my contention that this interchangeable use of opposites has done great harm to both Art and Architecture, and must be corrected in order to produce a new, creative concept of building.

The demolition of Art as a First Cause of Architecture started with three resounding declarations of war. The first was Marinetti's *Futurist Manifesto*, declaring that *"a roaring motor car is more beautiful than the Victory of Samothrace."* It was supported and amplified by Le Corbusier in his immensely influential confession, "Toward a New Architecture." He glorified silos and airplanes, rhapsodizing that, *"Our engineers, the New Hellenes of our day, are creating in the shape of their motor cars a beauty Phidias might have envied."* The second declaration of war on Art for Art's Sake came from the German Bauhaus. Its program stated that *"art is not a profession; there is no essential difference between the artist and the artisan . . . ."* It attacked *"the fundamental mistake of the Academy, arising from its preoccupation with the idea of the individual genius."* *"Our ambition was,"* wrote Gropius, *"to rouse the creative artist from his otherworldliness and reintegrate him into the workaday world of realities."* His Art was to be as much an integral part of the functional house as radiators and furniture. The new realities of science, technology, and standardization were to be employed in the effort: *"to rationalize buildings and mass-produce them in factories by resolving their structure into a number of component parts . . . . The repetition of standardized parts . . . will have the same sort of co-ordinating and sobering effect on the aspect of our towns as uniformity of type in modern attire has in social life."* The new morality of Art and Architecture was *"the sobering effect"* of its social and economic usefulness.

The third attack on Fine Art originated in America, in the Pragmatic Experimentalism of William

(Continued on page 14)

* *From an address given at National Institute for Architectural Education, New York, N. Y.*

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REINHOLD

p/a views

(Continued from page 13)

James and John Dewey. PRAGMA, meaning *"the thing done,"* was identified with art. *"The esthetic experience,"* wrote Dewey, *"is an open process of doing and undergoing. We reject the assertion that there is an esthetic experience of* timeless *form."* Art received its function as therapy and pedagogical expedient. It is still with us today as the "creative art course," offering the student a chance to be an artist on equal terms with math, hygiene, and military science at the unprecedented bargain rate of two credits per semester.

After thirty years of evidence, it seems obvious that the identification of Art with Design has produced more negative than positive results. Notwithstanding the highly idealistic and sociomoral motivations of the leaders in the fight against Art for Art's Sake, end results are dreary and destructive beyond description. Marinetti's *"roaring motor car"* has turned into fin-fannied Cadillacs in clashing rainbow colors. Bauhaus Functionalism has justified the turgid technocracy of Buckminister Fuller—seeing the aim of the architectural curriculum in *"catalyzing co-operative and potential resources into realigned and realizable technology and management strategy, providing demonstrable increase in performance increments per units of invested resources"* — and Dewey's *Art as Experience* has deprived our students of the devotional experience of standing in awe before greatness by leading them into an absurd misjudgment of their own creative power. Art can only remain Art if it is created for Art's sake. It is visual revelation, conceived in the social and material climate of an epoch, but rising above it in the process of creation. Once the power of the artist has, in the words of Odilon Redon, *"bodied forth imaginary beings in terms of material logic,"* it exerts spiritual influences beyond the limitations of social environment. It is a process that can be neither taught nor utilized. It is native to a few chosen and haunted men whose lives should be fenced off from ours by barriers of respect and humility.

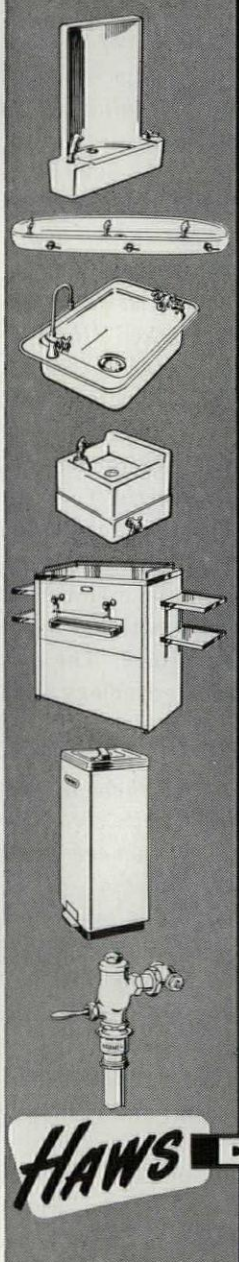
What then is Design? In a gross oversimplification, one could say that while Art is identity of form and idea, Design is identity of form and function. Art is at its most powerful when it transcends reality; Design when it identifies itself with the standards of the age. Art acts on the beholder through an intangible process of empathy; Design acts on the consumer through the tangible qualities of fulfiled purpose in appropriate form. But the most decisive difference lies in the notion of progress. Art is outside the graphic curve of improved environment. It evolves in cycles, reaching a climax when the ideological aspirations of an age find their purest symbol in the work of the artist. The designer, on the other hand, is committed to the conquest of chaos. There is unquestionable progress in the provision of shelter between a pit-house and an apartment building or between a charcoal brazier and radiant heat. But it is a progress limited to mechanical equipment and skill, and not to concept.

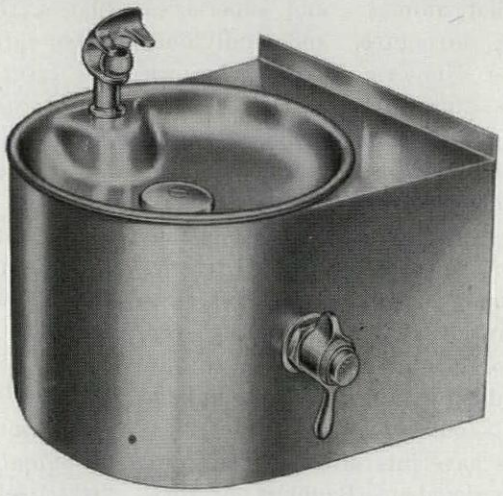
It is at this point that the PURPOSE OF ARCHITECTURE becomes self-evident. Architecture is the great catalyst of man's two perceptive worlds: it links the self-sufficiency of art with the efficient realism of design. Buildings—as transmitters of life — express form, space, and meaning in two distinctly different spheres of SERVICE AND SIGNIFICANCE that can be delineated and coordinated by none but the architect. It

(Continued on page 16)

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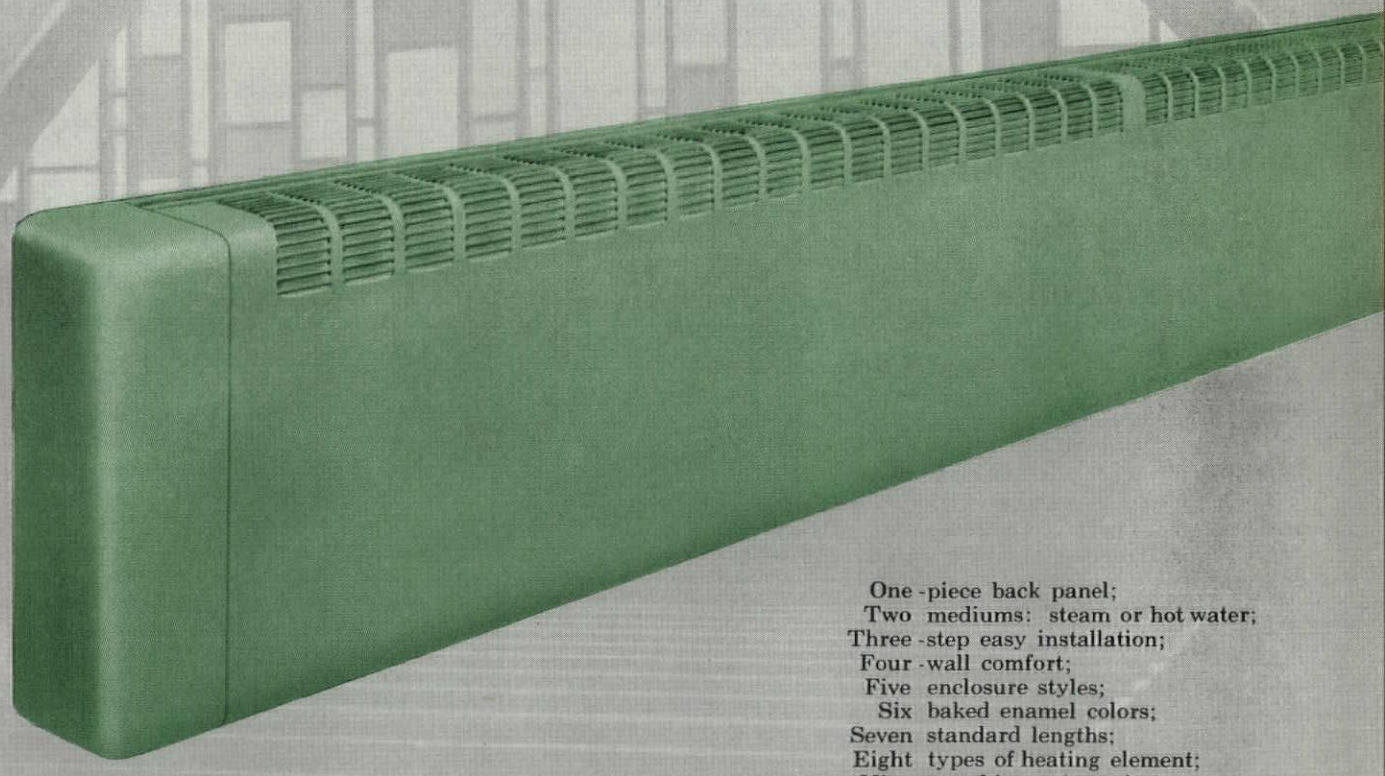
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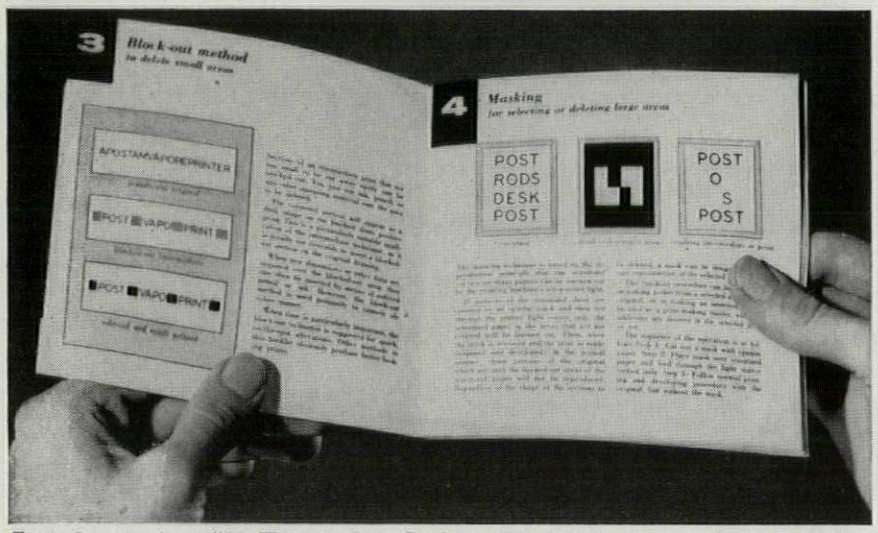
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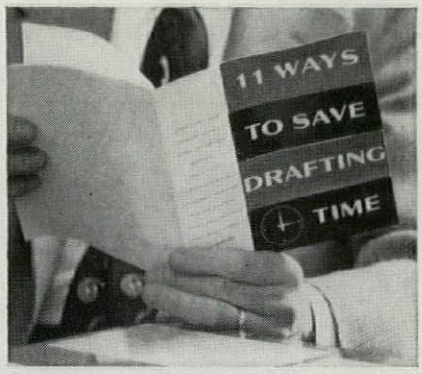
Helpful booklet on drafting tips offered again

An interesting booklet called "11 Ways to Save Drafting Time" is available without charge to engineers and draftsmen. Published by Frederick Post Company, it compiles the many ways of using *intermediates* to modify drawings without changing the original.

As most draftsmen know, an intermediate is any translucent reproduction master printed from an original drawing. Once the drawing is printed on the intermediate, this "duplicate master" serves as the source for future print making. By modifying only the intermediate and leaving the original unchanged, draftsmen save valuable hours of tracing and redrawing.

The booklet shows 11 specific ways of using intermediates to make changes, each one illustrated with examples. Some of the techniques covered are scissor editing, masking, the block-out method, successive additions and preprinting.

The other methods shown are transparent matte tape, pick-off transfer, composite grouping, composite overlays, non-reproducible blue and use of corrector fluids.



Intermediates can be used in a variety of ways to cut costly retracing, changing and modifying of drawings.

The techniques described apply to various print-making methods such as moist-developed process, ammonia process, blueprint, sepia negative and even reproduction cloths in some instances.

Further information on the new "11 Ways" booklet is available from the Reader Service Division of the Frederick Post Company, 3642 N. Avondale Avenue, Chicago 18.

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p/a views

(Continued from page 14)

is he, to borrow a formulation from Spencer's *Evolution*, who *"compacts the diverse and antagonistic into the simple and the permanent,"* into the MORPHON—the ultimate form.

Preindustrial cultures knew of this dichotomy. The concept of Greek architecture arose in the academy and not by the potter's wheel, and that of the Gothic Cathedral in the Scholastic Councils and not in the lodges of the stone masons. The confusion of Design and Art in Architecture starts with the 19th Century, when for the first time in the history of buildings Design works without concept. The spoils of Free Enterprise were invested into ostentatious houses which did not need Architecture as Art because they were conceived outside the time-honored wedlock of service and significance. Into the vacuum, left by the abdication of the architect as visual leader, stepped the building engineer, the self-styled *"homme par excellence"* of the 19th Century. Beside the obscene monstrosities of eclecticism he put the clear honest and serviceable structures of halls, bridges, and towers. They confirmed the nature of Design by creating maximum standards for the fulfilment of timebound needs. The Gallerie des Machines, the Eiffel Tower, the Brooklyn Bridge, the Hangar at Orly are the admirable expressions of progressive technology. BUT THEY ARE NOT ARCHITECTURE. They are predicated on a limited choice of industrial materials, structural calculation, and functional purpose, and they produce, by the competent use of these limited choices, forms of strong and harmonious beauty. But so do a locomotive and a cement mixer. The First Cause of Architecture, to express that which is time-required and that which will remain valid beyond the passage of time through a composition of enclosing form and enclosed space, is missing.

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(Continued on page 22)



Design for Hospital Solarium by Welton Becket, F.A.I.A. and Associates

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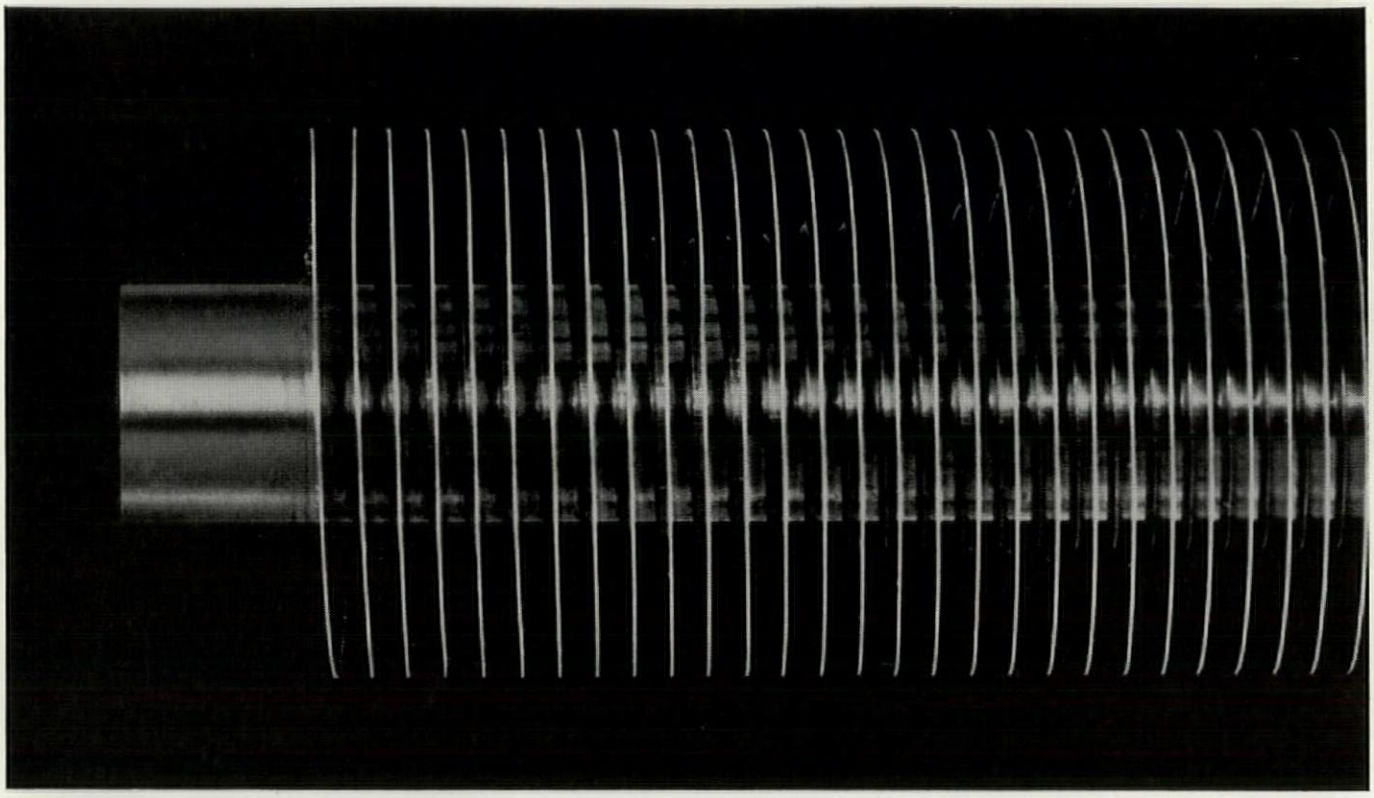
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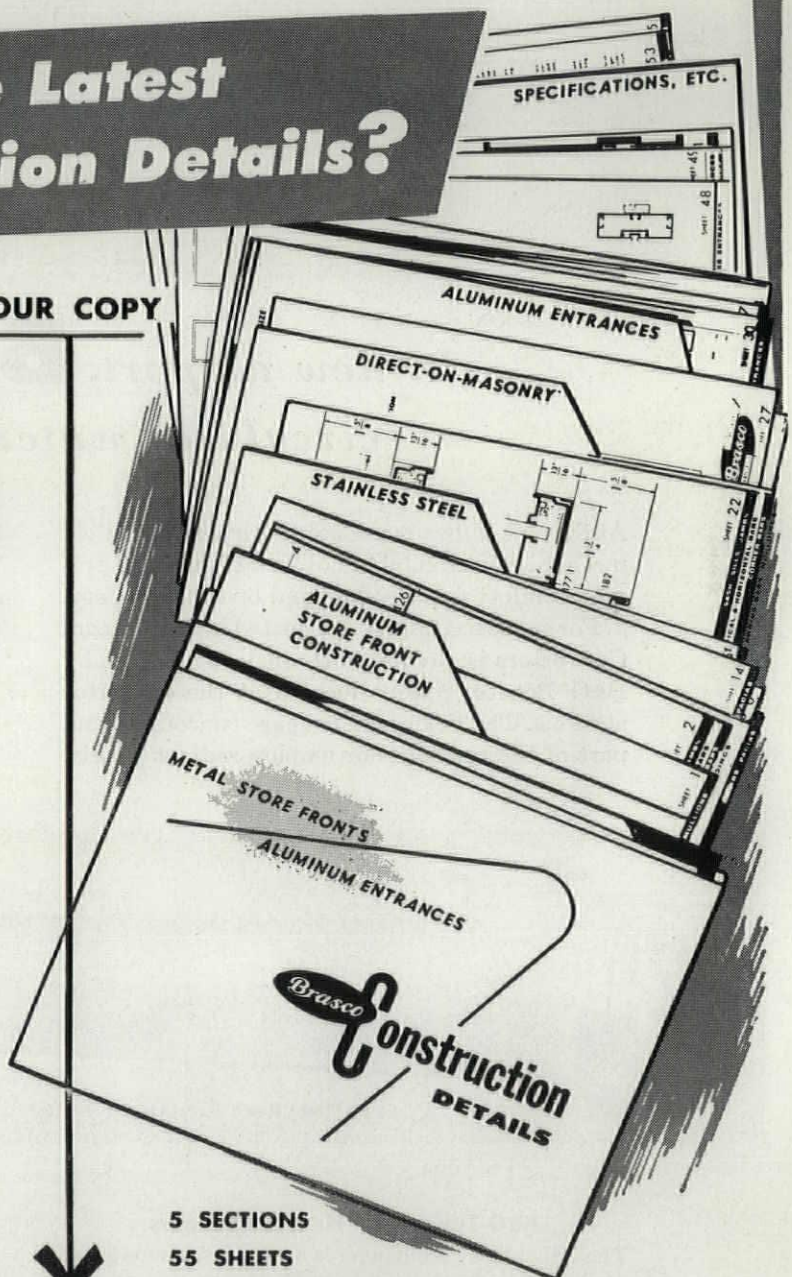
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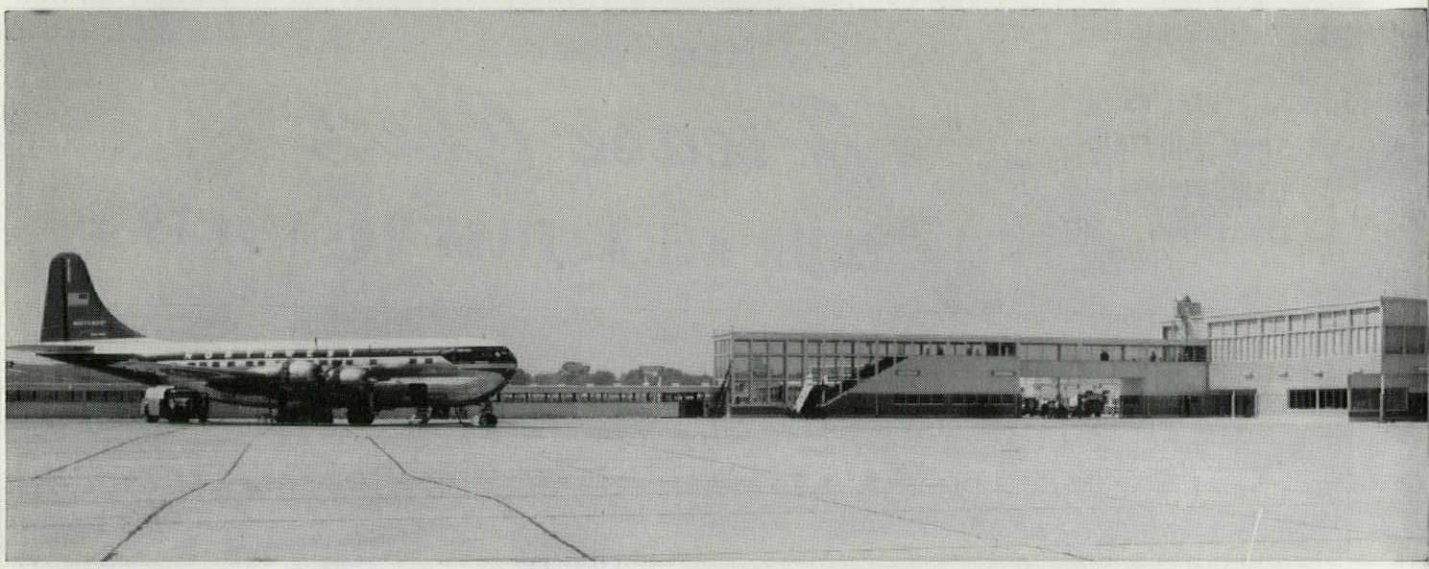
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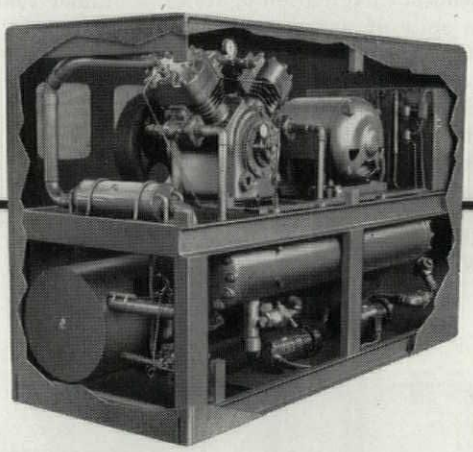
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p/a views

(Continued from page 16)

is the very organ touch of its appeal. . . . The glory and the pride of exaltation must be in it . . . . " And he achieved under the inspiration of this concept a solution that is a masterpiece of balance between verticality and horizontality in the enclosing form, between space function and space distribution around a central court, between expressed building material and expressed artistic ornament. *"The Utterance of Life is a Song,"* he had written over the door of his Chicago Auditorium, and for once in his tragically frustrated life he heard its pure harmony.

But the Tall Office Building grew beyond the wildest imagination of its first genius. In spite of ardent attempts to align contemporary skyscraper design with the concept of Louis Sullivan, it has long become evident that there is as little relationship between, say, Rockefeller Center and the Wainwright Building, as between the Coliseum of Robert Moses and the Colloseum of Rome. A Sullivan Building with a maximum height of 10 stories could be comprehended as an artistic entity. The designed structural framework was a flexible scaffold which the architect could manipulate according to his creative imagination. The skyscraper of today is the child of the engineer and not of the architect. *"The freedom of form . . .",* wrote Luigi Nervi, *"disappears when we are confronted with large dimensions of exceptionally heavy loads. A bridge of more than 100-foot span has already a limited number of solutions . . . and there may be only one or two left if the span is over 300 feet."* Economic and structural demands, mechanical equipment, code regulations, and investment returns have liquidated *"the glory and pride of exaltation"* and have relegated *"the artist-nature of the architect"* to such minor concerns as extruded mullions in one metal or another, the selection of prefabricated curtain walls is dimestore varieties of colors, and the plaza (sunk, flush, or elevated) which, despite its undeniably salutary effect, offers only limited possibilities of architectural expression. The loss of the skyscraper to the engineer could go unmourned, if it had not created a *"skyscraper mentality"* that expresses itself in two curious ways. It has produced a standard type of commercial and administration buildings, looking like fractured skyscrapers or corners broken off the big cake; and it has sent the architectural profession in search of substitute concepts behind which to hide the raging inferiority feeling created by the victorius alliance of business and engineering. Like children, playing *"pin the tail on the donkey,"* ideological labels are stuck on architectural design, *after* the client, the financier, the engineer, the renting agent, the office manager, and Public Opinion have decided the design of the building over the more or less dead body of the architect.

Afterthought concept number one is SIGNIFICANT FORM, claiming Le Corbusier and Mies van der Rohe as ancestors. Its most outstanding characteristics are two-dimensionality of form, undeviating uniformity of a basic module, and a total neglect of interior space or plan, all leading to such disquieting similarities as the resemblance between the standard floor plan of an apartment in Le Corbusier's Marseille building and a Railroad Flat in a 19th



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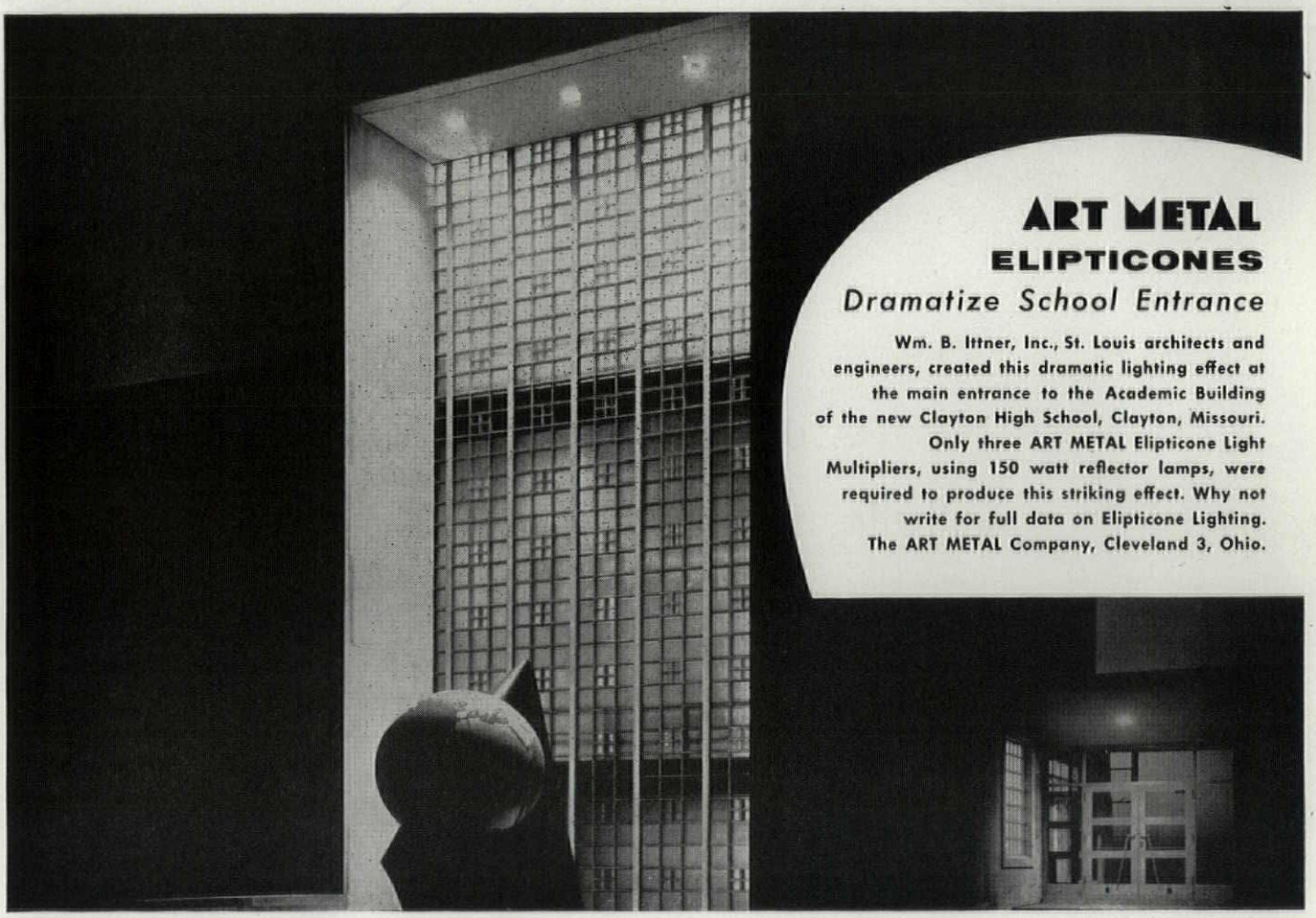
Century tenement. No one will deny that the prototypes of this substitute concept are significant Form; the question is whether they are significant Architecture.

The second substitute philosophy of the defunct technological architect is TRADITIONAL CONTINUITY. It ranges from "Connecticut Palladianism," dressing up modest frame dwellings in the ceremonial robes of excessive symmetry, to "The New Versailles" of industrial plants, based on the consumption of water that by flow-meter measurements exceeds the liquid dreams of Louis XIV. Its latest rage is the claim to Gothic heritage in the vaults of an airport, sitting like amputated trunks in a most un-Gothic height of thirty-two feet on a solid masonry base, or the diamond-shaped roof of a university library, proudly and unashamedly relating itself to the attic dormers of Collegiate Gothic.

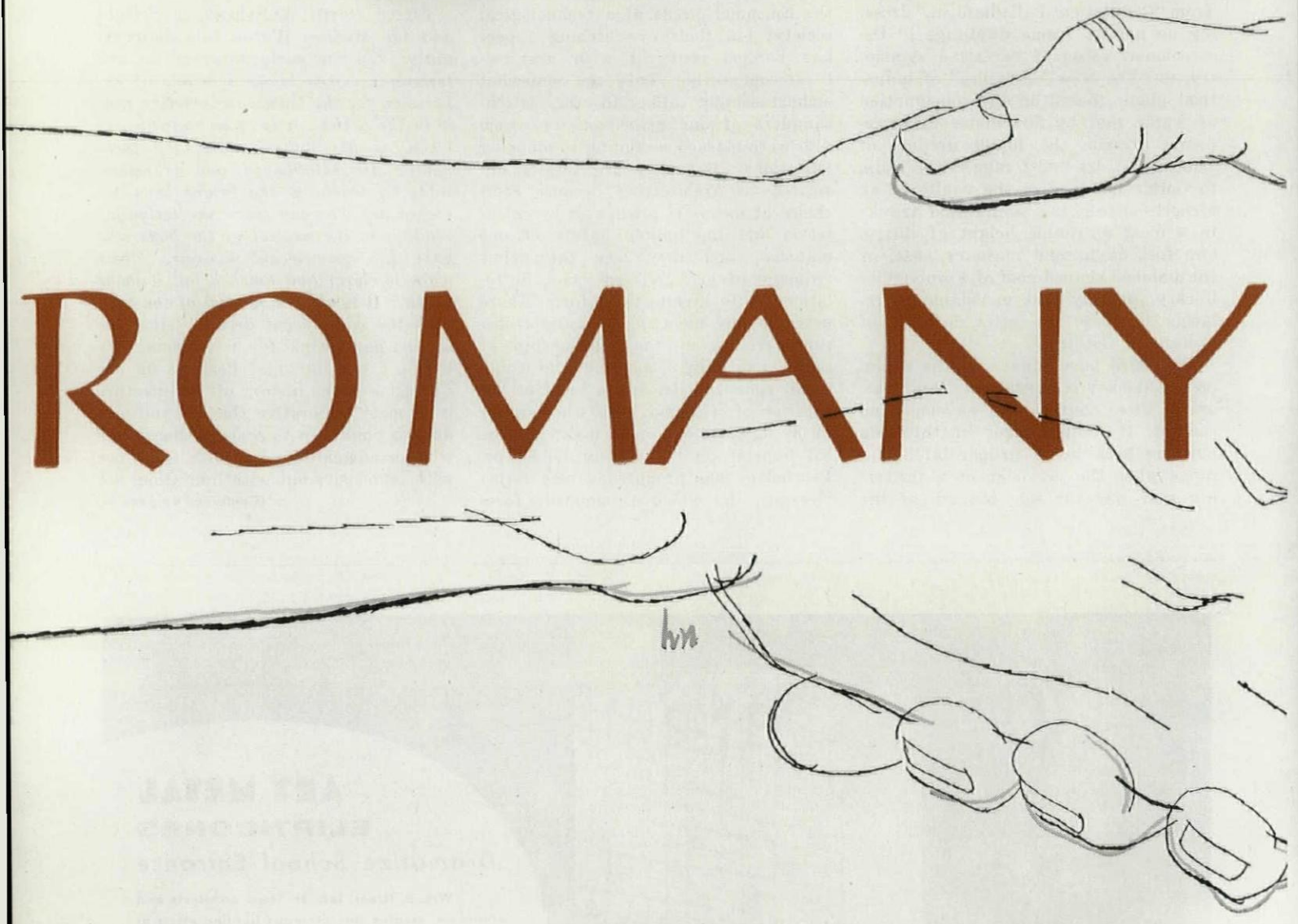
The third label pinned on the monumental donkey is EXPRESSED STRUCTURE, or the utter confusion of envelope and content. It is in danger of throwing building back to its primordial beginnings when the provision of a sheltering roof was the sole concern of the builder. Ferro-cemento fan elements, hyperbolic paraboloids, tetrahedrons, and a dozen more hung, warped, twisted, and stretched roofs have become the main concern of our architectural curricula and our architectural publications. In the best tradition of design, they are maximum identifications with the consumer needs of a technological society; but their eye-catching appeal has become confused with architectural composition. They are somewhat embarrassingly alike to the stitch-samplers of our grandmothers which also were marked according to amusing variations. But they are totally unrelated to Architecture because their choice of means is predicated by calculation and the limited nature of one material, and they lack the prime requisite of architectural space in relationship to architectural form. There never is any mention, in polite structural circles, of the relationship of cover to interior space, and who would be so rude and demand a view of the *exterior* of a Nervi hall, which after all by its sheer size must make a colossal imprint on the human landscape. Psychology has produced a new term: "*Gestalt*," by which a composite form acquires a new meaning that supersedes the individual properties of its component parts. EXPRESSED STRUCTURE never achieves a *Gestalt*, a new three-dimensional architectural personality. It is justified by its creators with analytical descriptions of its calculated components.

Alfred North Whitehead, in *Science and the Modern World*, said clairvoyantly: "*In the early stage of an art, technique comes in as a means of expression for the burning conviction that is in the artist. It is often ragged. . . . Then as art matures and the techniques get established and transmissable by teaching, the bright boys are picked out who can learn the technique readily, to the neglect of the boys who have the magnificent dreams. Their work is clever and finished but it lacks depth.*" It is of "*the neglect of the boys with the magnificent dreams*," that we should now think for a moment. We live in a peculiar age. Perhaps for the first time in the history of Architecture it is most imperative that magnificent dreams ought not to concern themselves with monumentality but with scale, not with immensity but with limitation, not

(Continued on page 26)



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p/a views

(Continued from page 23)

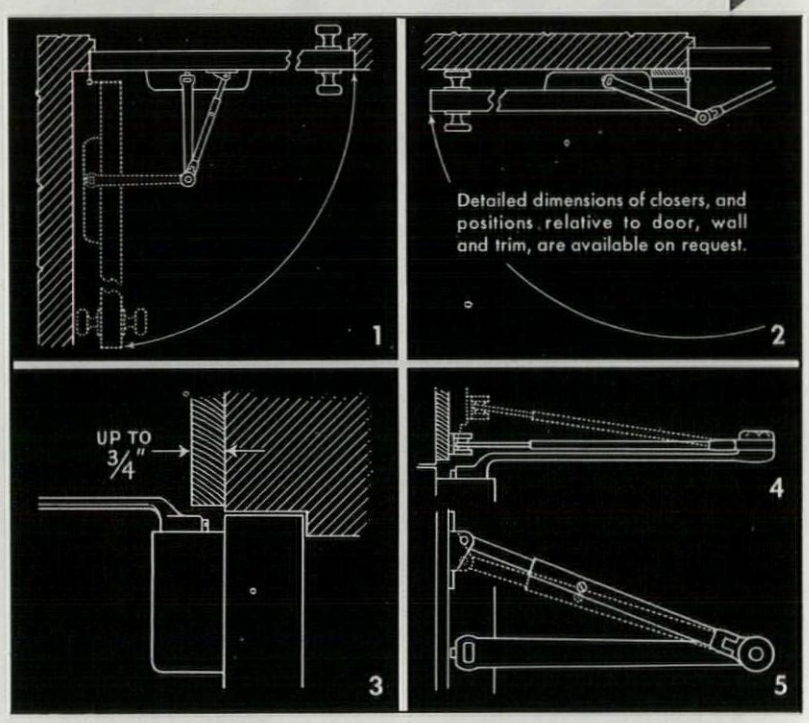
with the universal but with the particular. Architectural utopias are cheap; nothing is too big for the drawing board—nothing except creative imagination, applying itself to the *reality* of life. It was Horatio Greenough, that amazing prophet of a new age, who said: "*I understand by embellishment the instinctive effort of an infant civilization to disguise its incompleteness.*" By substituting the word monumentality for the word embellishment, we have the essence of our skyscraper romanticism, redreaming whole cities in terms of "vertical villages," and sprawling over the walls of Graduate Thesis Exhibitions those multimillion-dollar schemes composed of carefully scaled toy-boxes, arranged in highly attractive wall-paper patterns. But in reality—outside the chartered romanticism of the Big Planners—the communities of man consist of individual buildings that must be conceived architecturally if they are to provide more than mere shelter. The technological progress of these buildings is taken for granted. It is assumed that every architect is in full command of building industry. But he has to face the moment when it is up to him and to none else to create a new three-dimensional reality, raised by him on the surface of the earth against indifferent air volume, obstinate materials, and hostile or confused socio-economic forces. At that moment he must either think of An Ideal Standard for his architecture, or he should declare himself a fraud, usurping the activities that are rightly those of the engineer and the contractor. The "*magnificent dreams*" that must come to him at the moment of conception are not those of design but of the selective, co-ordinative, four-dimensional *volumetric art of architecture* based on diversity of form and space, economy of resources and function, and durability as material value and spiritual symbol.

There exists today an Architecture, less heralded than any of the substitute concepts of skyscraper monumentality, that promises a future fulfilment of these magnificent dreams. It expresses itself foremost and quite logically in structures that furnish automatically, so to speak, a concept that supersedes mere utility. Contemporary school and church architecture have created a new vocabulary of site planning, space distribution, utilization of exterior-interior space divisions, articulation of form and void, and manipulation of structural elements, that will stand as valid even if posterity should doubt the sanity of all else built in this century. In addition to churches and schools there is an almost unlimited variation of good contemporary building, hidden behind the catch phrases of the Big Names. Libraries, medical centers, dormitories, and particularly dwellings, scattered over the small and medium communities of America and Europe, can today be judged by new standards of Architecture as Art. Without any claim to completeness, some of these new standards could be characterized as follows:

The Plan in its new function for a society, based on the sophisticated opposites of collectivism and individual freedom, a mentality equally unsuited to the cell-block divisions of the Renaissance and to the naive lack of enclosure in the relentlessly "open" floor plan.

The recoining and reusing of *Traditional Building Materials* in conjunction with technological ones. Under this aspect, the current competitions for a maximum use of metal, plywood, or

(Continued on page 32)



APPLICATION DETAILS

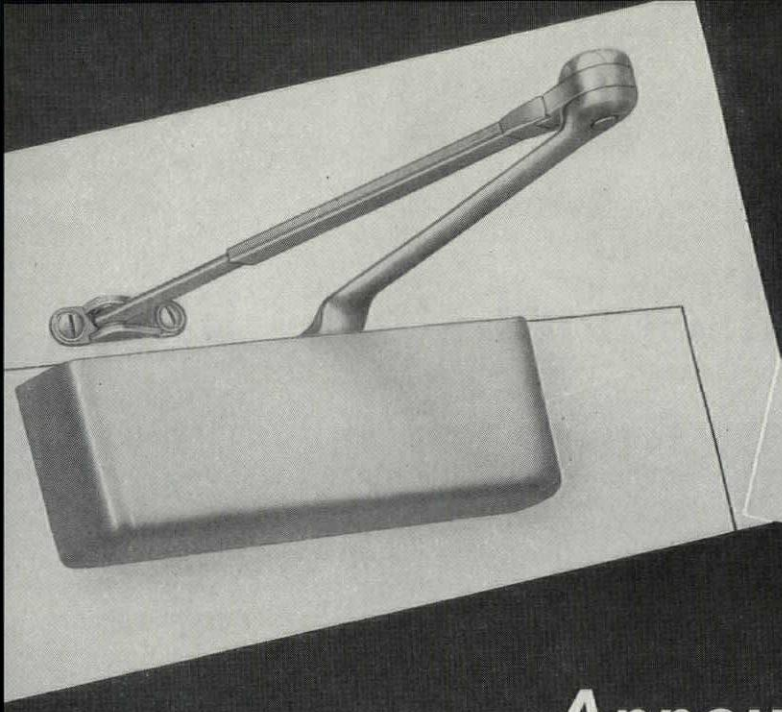
for the New LCN "Smoothee" Exposed Door Closer Shown on Opposite Page

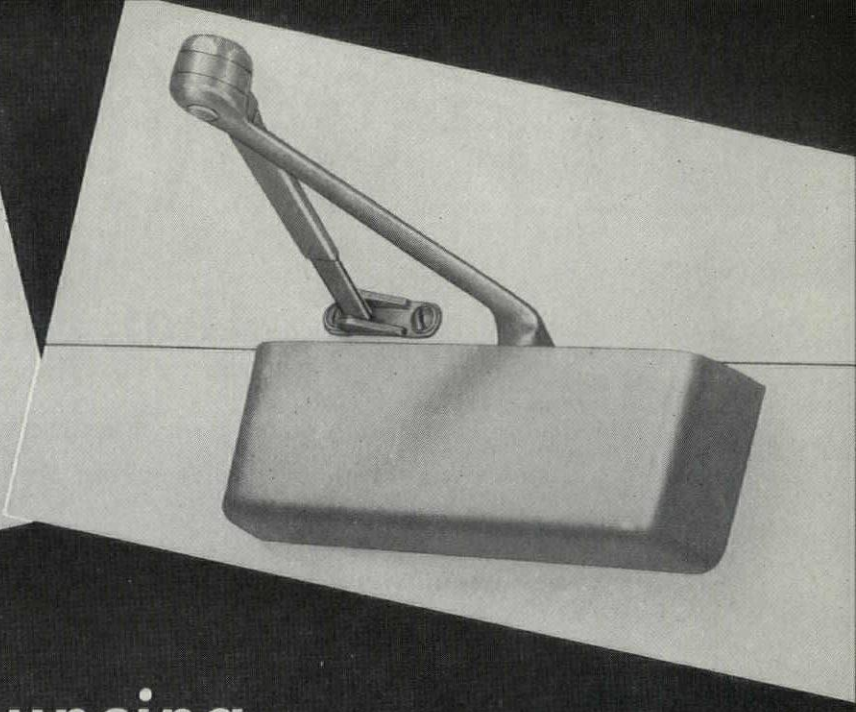
As Demonstrated in Drawings Above:

1. The LCN "Smoothee" takes less space than most doorknobs between door and wall.
2. Degree of door opening possible depends mostly on type of trim and size of butt used.
3. Arm of LCN "Smoothee" is curved to avoid conflict with almost any conventional trim.
4. Joints in arm and shoe make it easy to vary the height of shoe as needed for beveled trim.
5. Power of closer is increased or decreased by simply reversing position of shoe.

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Officially Nos. 4002, 4003 and 4004

An Exposed Type Closer That's Actually Good Looking with Clean Lines and Practical, New Features

We call it the "Smoothee" because that's what it really is—smooth to look at and smooth in mechanical performance. And it has some new features that almost anyone would agree are "pretty smooth."

It's compact, fits closely against the door, can be painted to blend with door and trim.

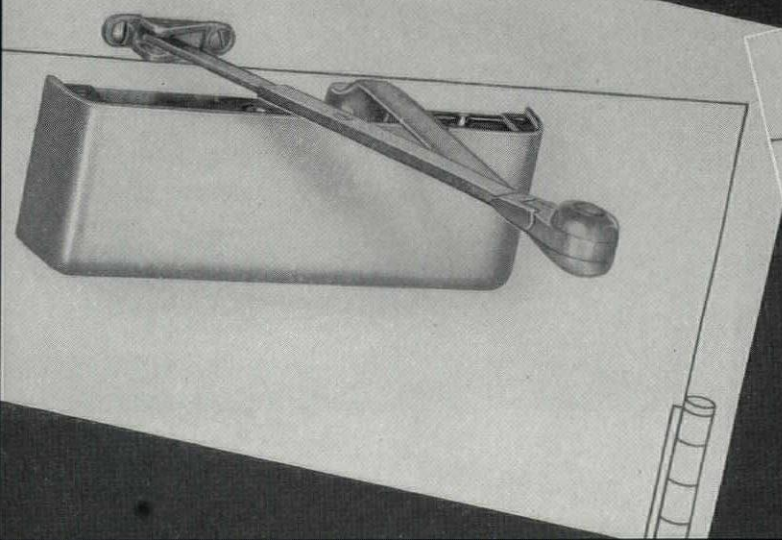
Trim permitting, it allows full 180 degree opening, as it projects from the door less than a standard doorknob.

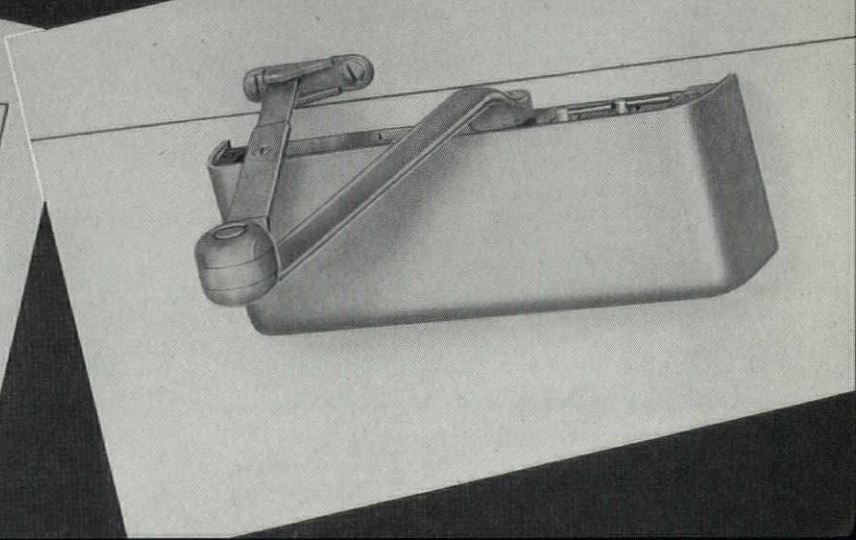
It applies equally well to wood or metal interior doors, and calls for no more skill to install on the job than the ordinary exposed closer.

Its sleek, strong arm has several features welcome to users and installers: (1) a jointed forearm that permits placing the shoe an inch or more higher than normal to avoid a trim bevel; (2) a surface-applied shoe with off-center rod connection providing increase of power by simply reversing the shoe; (3) a new universal joint between rod and shoe to prevent binding; and (4) a flat steel rod slipping into the forearm with an almost invisible connection.

Altogether, this new LCN "Smoothee" fills a big need in the building business. For many, many interior doors it offers fine control equipment at moderate cost.

Additional Details on Opposite Page





ITEM: ALUMINUM

that raises and stores like a

A dramatic example of the versatility of Kaiser Aluminum in meeting the weight-saving, space-saving, maintenance-saving design requirements of industrial architecture

This rolling door demonstrates many of the advantages aluminum offers for industrial architecture.

For example, it weighs *only one-third as much* in aluminum as the same door made of steel. Yet, the Kaiser Aluminum used in its construction meets the most exacting strength and performance requirements.

Thanks to its light weight, the door may be easily operated manually. Or, when a power-operating mechanism is used, only a lightweight, economical unit is required.

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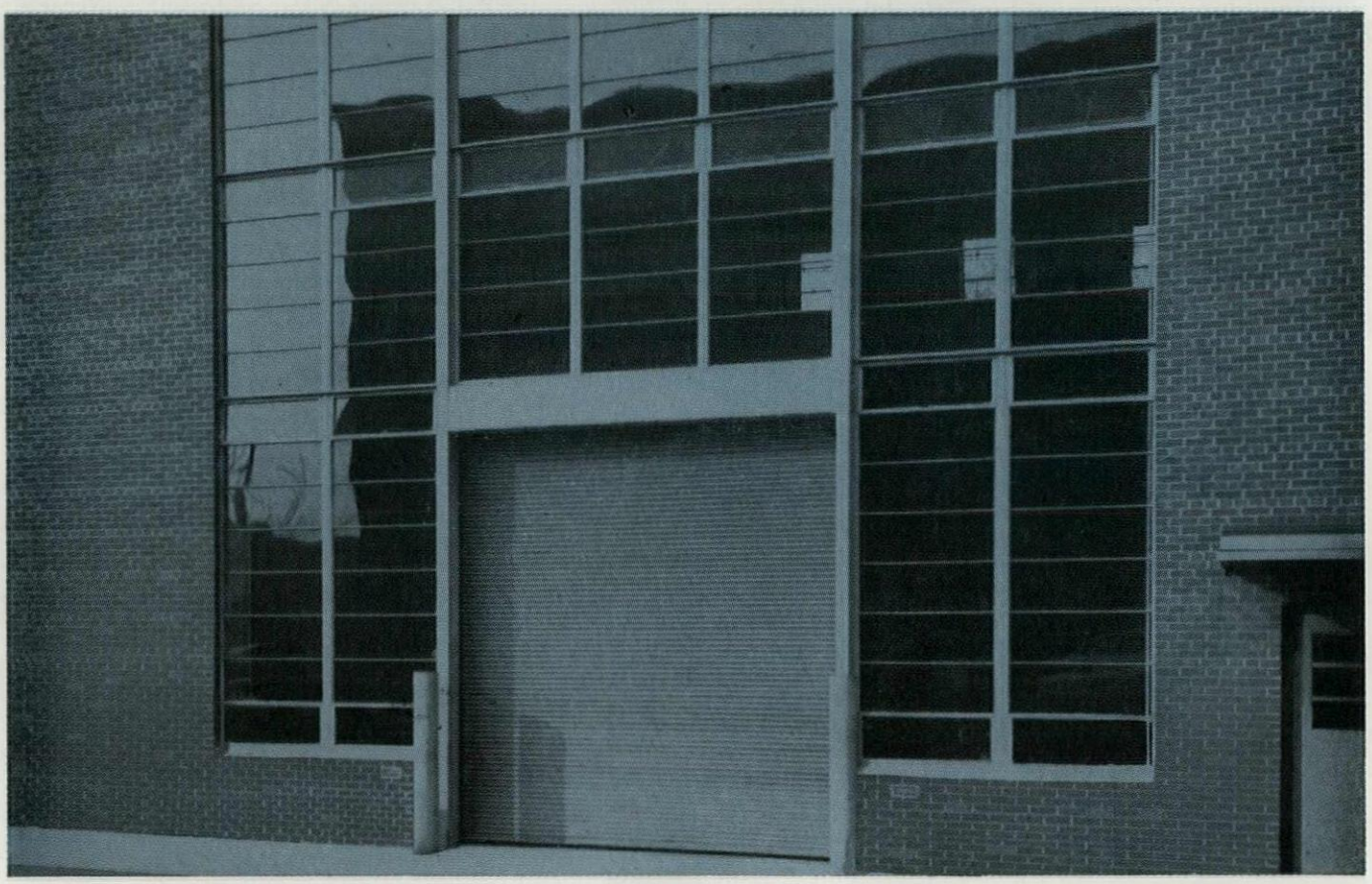
A second advantage aluminum offers for industrial architecture is its bright, natural look . . . a clean simplicity that conforms to modern design ideas. Whether concave or convex surface . . . box or flat-panel effect . . . virtually any styling gains appeal in aluminum.

Even in simple remodeling applications, a common door *in aluminum* goes a long way toward modernizing building appearance.

Durable . . . Minimum Maintenance

Outstanding among aluminum's unique combination of useful properties is its resistance to corrosion. Because aluminum requires no painting or rust-proofing, maintenance is practically eliminated. It resists both weather-wear and the corrosive attack of severe industrial atmospheres.

In this engineering-building "rolling door," interlocking aluminum slats coil like a window shade around barrel inside compact hood located above and behind doorway.



DOOR

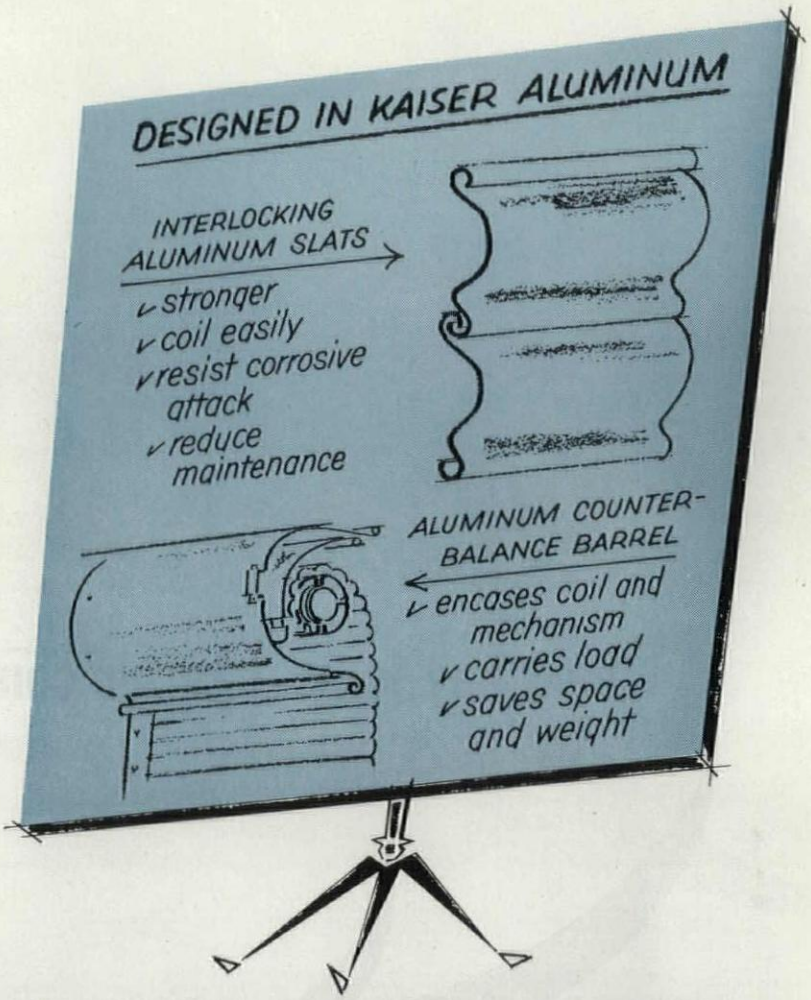
window shade

In addition to this "rolling door," many other types of doors take advantage of aluminum's efficiency and economy. The four types shown below are recommended for specific applications.

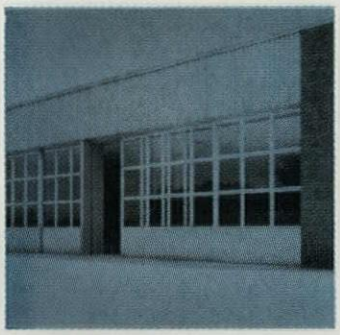
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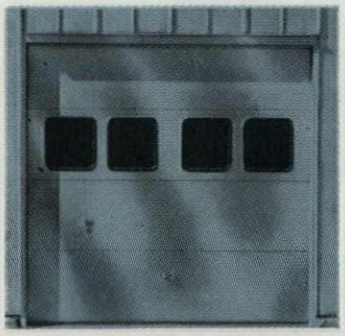
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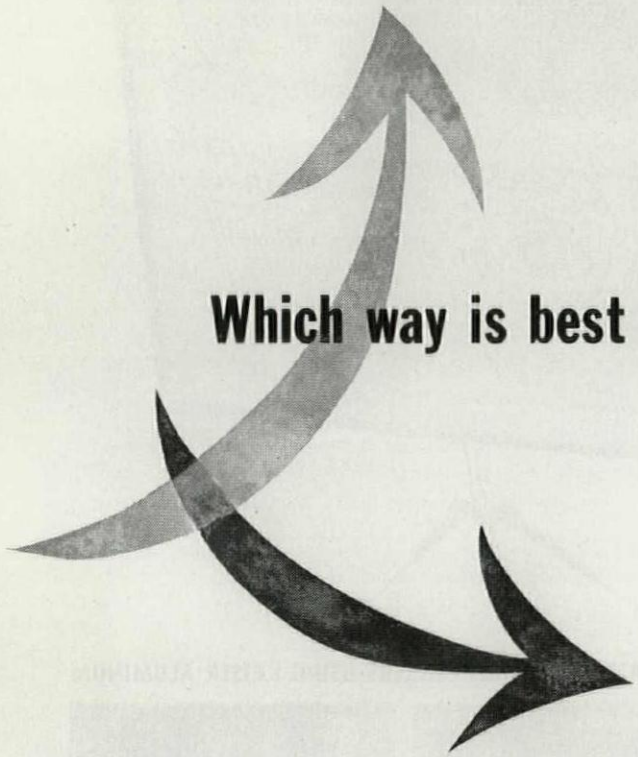
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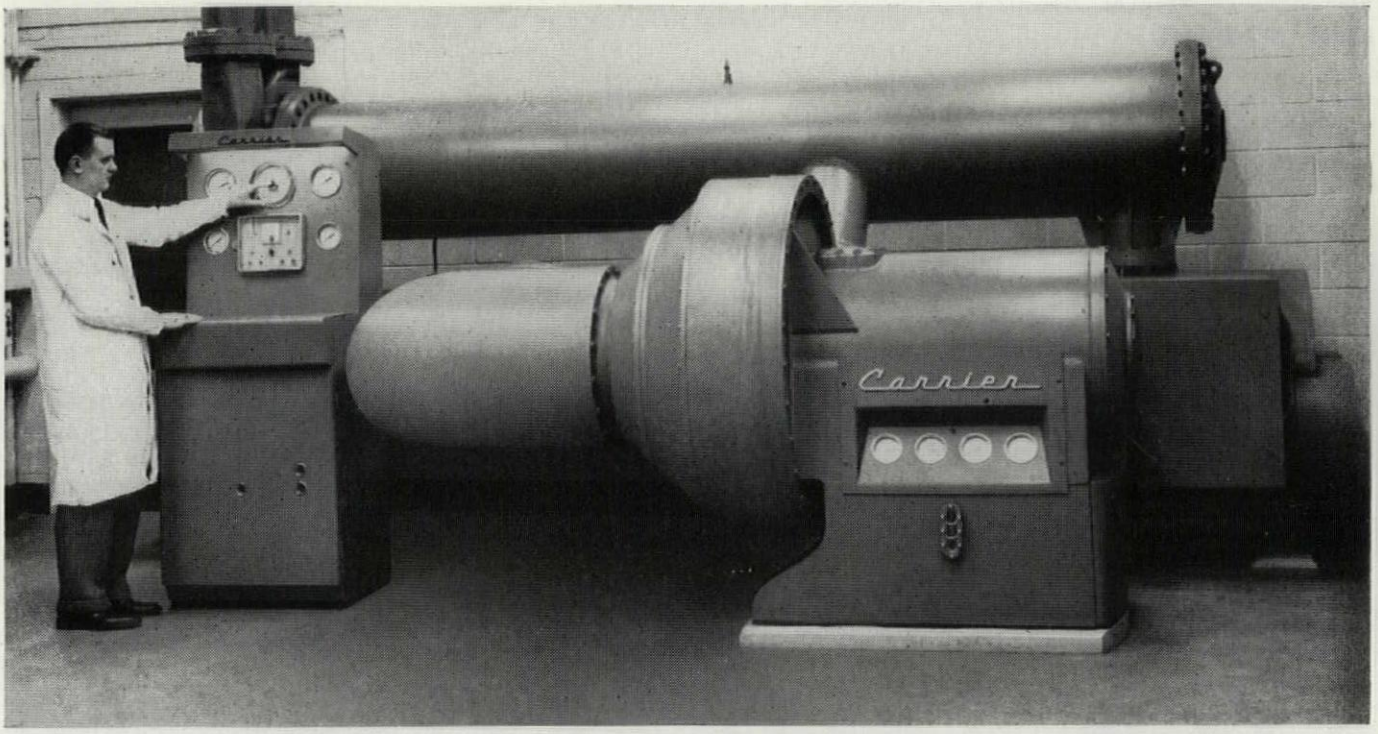
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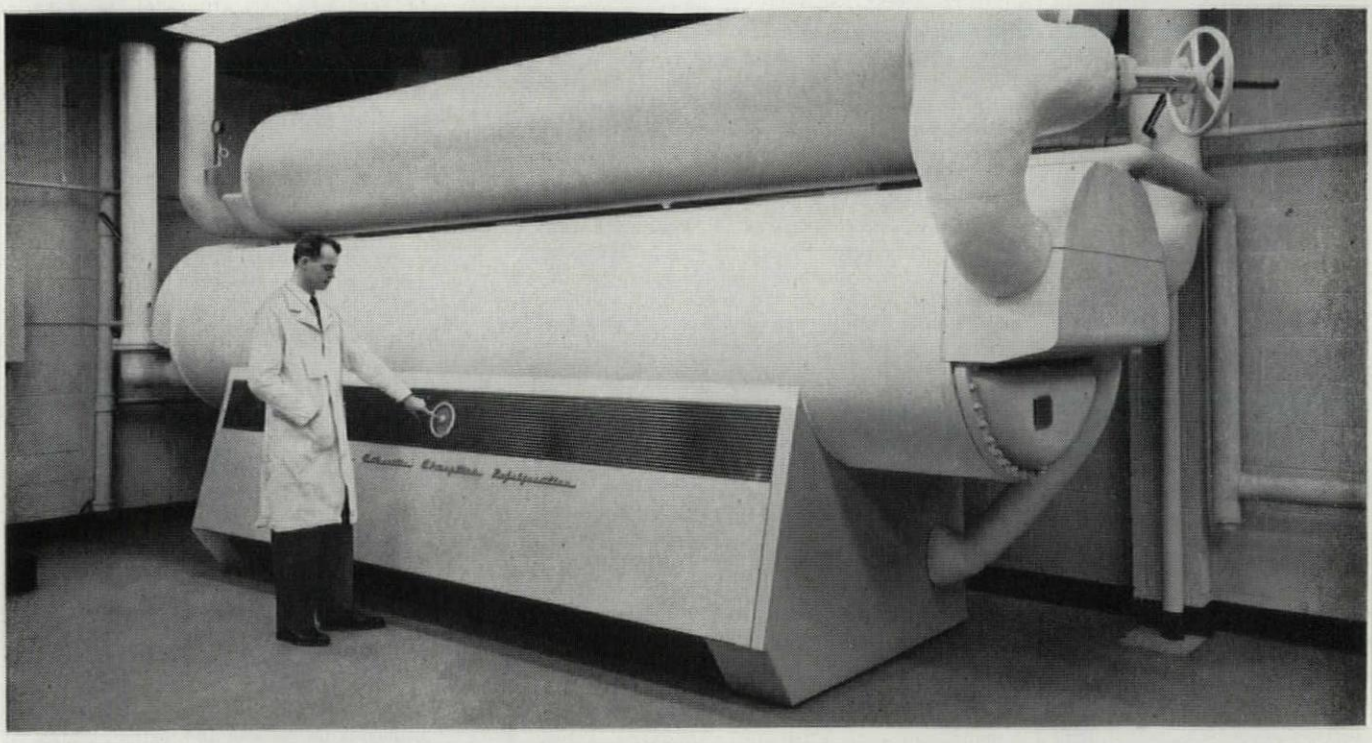
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p/a views

(Continued from page 26)

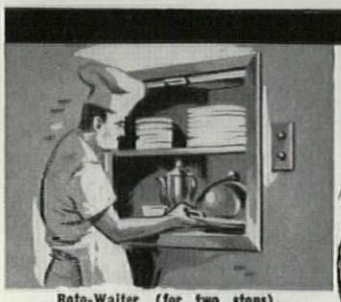
whatever specialized material, are of most doubtful value. They are anti-architectural incitements against the essence of good composition of various materials.

Light and Transparency, expressive of the kinetic delight of modern perception, and as an articulation of mass and space, a co-ordinative force that links the building to the atmospheric volume that is its envelope. Buildings exert their esthetic influence through the alternate impression of mass and perforation. It is the challenge of a new architecture to use transparency and reflection in a consciously composed rhythm of opening-up and shutting-away.

The *Outline* of a building, that makes it as distinct as the profile of a human face. Vitruvius speaks of "*that perfect conformation of parts which may be observed in a well-formed human body.*" By articulating structure against the unlimited air space without, the architect of the smallest and the largest building can create a profile of three-dimensionality, making his work infinitely more architectural than the most expensive skyscraper on the surface of the earth.

Finally there should be a mention of *Style*, as another of many new architectural criteria. The freedom with which an architect selects form and space combinations from the many possible solutions at his disposal, is a gage of his excellence. We reject imitation, but the inspirational precedence remains of utmost importance. As the rebels of the Baroque in the 17th Century took the isolated elements of the Renaissance and set them in motion, so the architects of today must take the elements of building technology and building functionalism and recreate them as a style. Morality in architecture is no longer the raised finger of the preceptor who warns that "*modern architecture is not a branch of an old tree but a new growth coming directly from the roots.*" We are more humble today and acknowledge gratefully that there is the growth of millenniums to sustain us. There will always be the eternal tension between "*unequal but equivalent elements*," pulled into dynamic unity by the genius of the architect, and the classicistic repose of "*a coherent system, considered of having all its parts of equal value and perfectly co-ordinated.*" But we are free of the dictatorship of an academy. The architect of today has the freedom to answer the demands of his profession with a *choice* of style concepts, provided he is an artist whose work is based on selection and not, as that of the engineer, on necessity. It is beyond doubt that the anonymous architects of our best schools, churches, public buildings, and dwellings, who have developed this new vocabulary of volume or *space occupied*, will not fail in the monumental task when it comes their way; just as Wright did not fail it in the Larkin Building, after he had established his concept of *architecture as art* on the individual house and the human scale.

WHEN YOU SPECIFY dumbwaiters



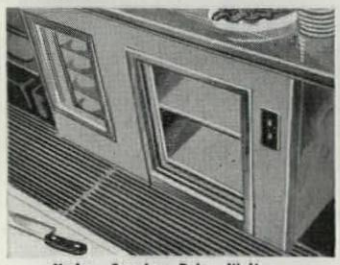
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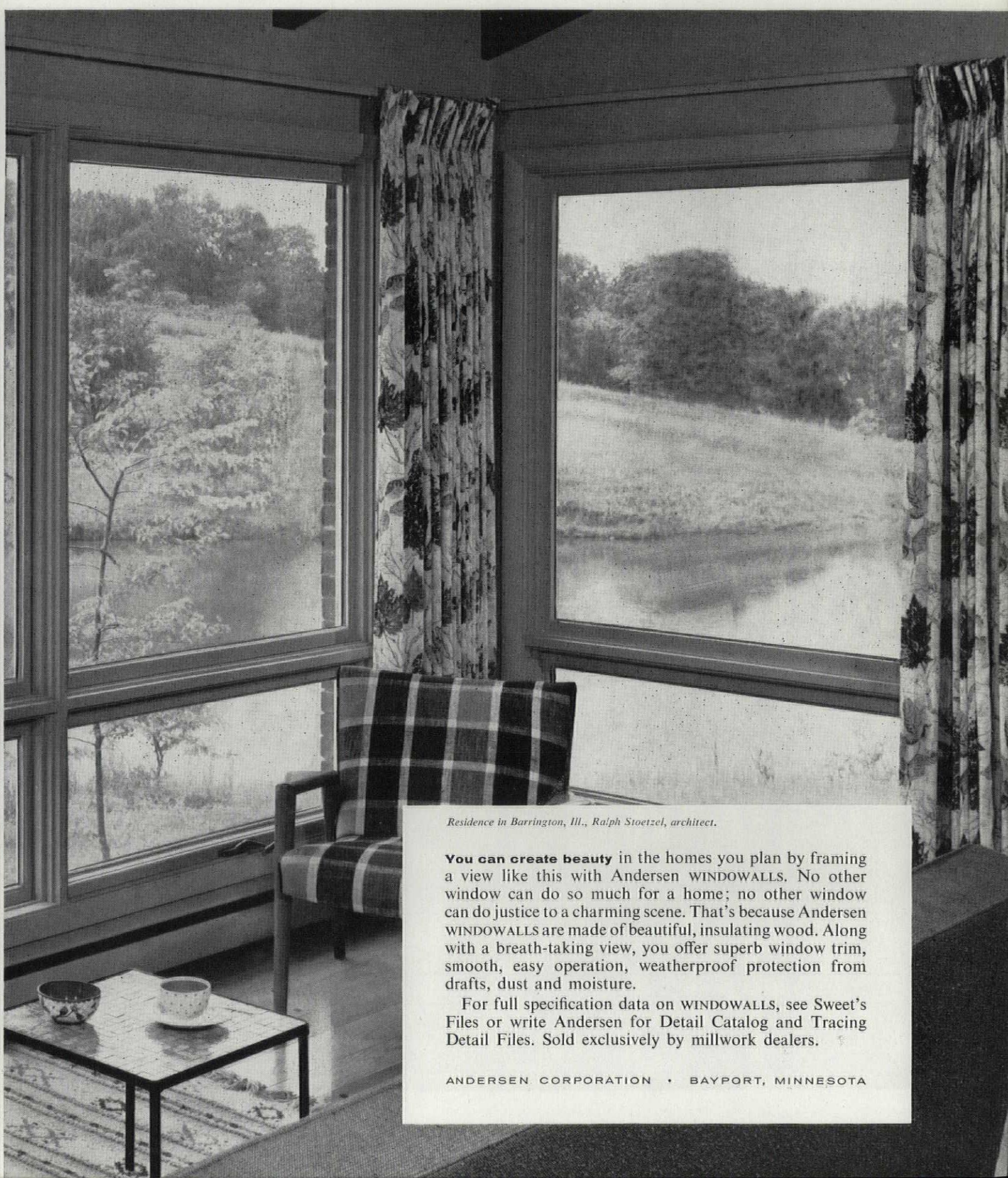
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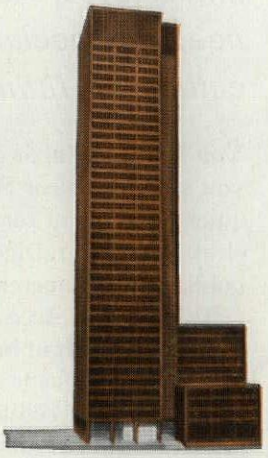
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At this stage, still wavy.

world's first bronze building

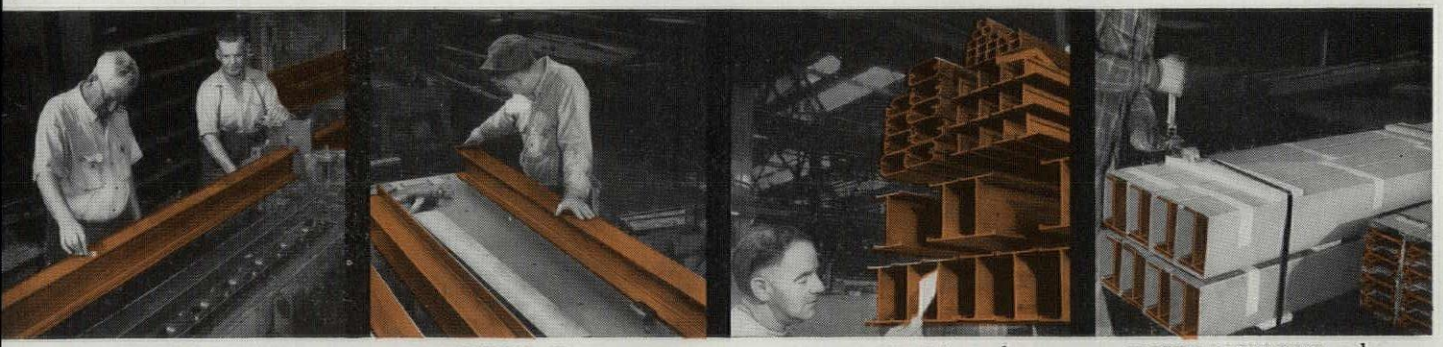


HOUSE OF SEAGRAM uses largest bronze shapes ever extruded commercially

The architects had a dream: to give New York's Park Avenue the world's first bronze skyscraper. And Chase engineers helped make it real. Constructing the Seagram Building "Curtain Wall" entailed fabrication of straight, true I lengths larger in diameter than ever considered practical. Chase, working with the architects, the General Bronze Corporation and other mills, played an important part in opening new horizons in design.

WHY BRONZE? Mies van der Rohe and Philip Johnson chose bronze for its nobility, beauty of color and structural flexibility. Moreover, the copper alloy called "Architectural Bronze" has mellowing qualities that will give the building a rich brown *patina* as it ages. Practically speaking, bronze requires a bare minimum of maintenance. But first came construction problems.

WHY CHASE? Technical "know-how" plus the most modern facilities eminently qualified Chase for its share of the job. Many of the specially-designed extrusions that make up the bronze facade are historical "firsts." Chase made valuable contributions to the engineering and modification of these shapes—as well as to the production of them. Perhaps you, too, have an architectural dream... *Chase is at your service.*



STRAIGHTENING PROCESS involves drawing shape through a second die.

PAINSTAKING HAND WORK assures that dimensions are micrometer-perfect.

QUALITY CHECK is made at factory of four shapes produced by Chase.

CAREFUL PACKAGING makes sure shapes reach building in flawless condition.

Chase® **BRASS & COPPER CO.**

Subsidiary of KENNECOTT COPPER CORPORATION • WATERBURY 20, CONNECTICUT

The Nation's Headquarters for Brass, Copper and Stainless Steel

Atlanta Baltimore Boston Charlotte Chicago Cincinnati Cleveland Dallas Denver Detroit Grand Rapids Houston Indianapolis Kansas City, Mo. Los Angeles Milwaukee Minneapolis Newark New Orleans New York Philadelphia Pittsburgh Providence Rochester St. Louis San Francisco Seattle Waterbury

A steel access door for less than the cost of wood!

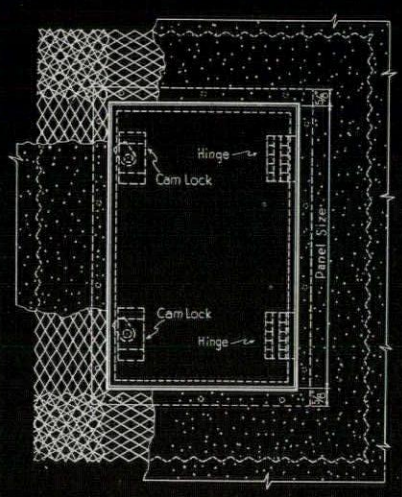
Milcor Steel Access Doors need no special framing, cutting, or fitting

You help save labor costs and building time, when you specify Milcor Steel Access Doors — to provide quick, convenient servicing of plumbing, heating, electrical, and refrigeration systems in homes and public and commercial buildings.

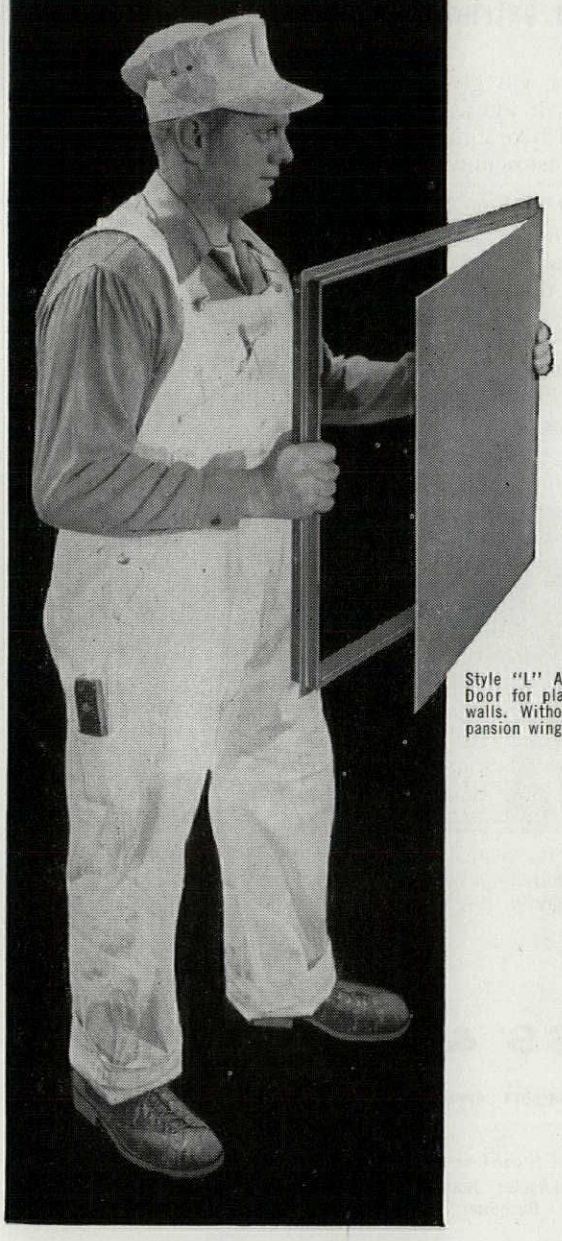
Milcor Steel Access Doors are delivered to the job complete with framing. They're ready to install at once in either plaster or non-plaster construction, flush with the wall or ceiling surface. No old-fashioned frame protrudes to mar the appearance of your interior.

Paint or wallpaper can be applied right over Milcor Steel Access Doors. All doors are factory-primed and one finish coat usually covers. No sanding or filler coats are needed.

Three types are available for use with plastered or unplastered surfaces. Sizes — 8″ x 8″ to 24″ x 36″. See Sweet's File or write for latest literature.

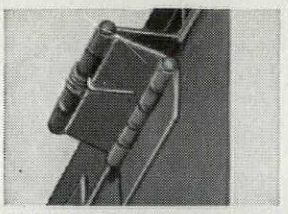


Expansion wings protect against plaster cracks

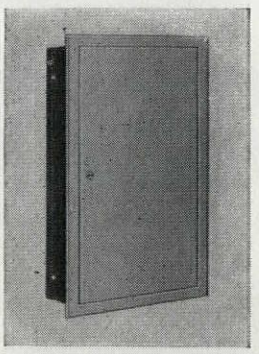


Style "L" Access Door for plastered walls. Without expansion wings.

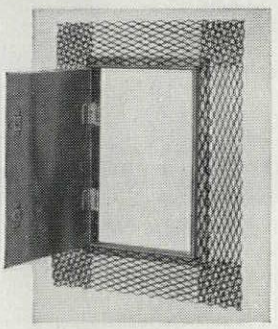
MILCOR® Steel Access Doors



Exclusive spring hinge lets door open 175°. Door is removed quickly by extracting hinge-pin.



Style "M" Access Door for masonry, brick, stone, tile, wallboard, etc.



Style "K" Access Door for plastered walls. With expansion wings.

INLAND

INLAND STEEL PRODUCTS COMPANY

DEPT. M, 4069 WEST BURNHAM STREET • MILWAUKEE 1, WIS.

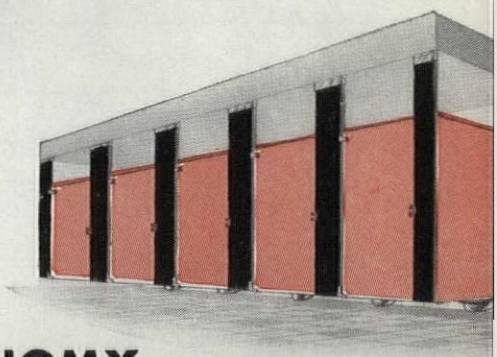
OFFICES IN: BALTIMORE • BUFFALO • CHICAGO • CINCINNATI • CLEVELAND • DALLAS • DETROIT
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M-175

TOILET COMPARTMENT CONSTRUCTION THAT *Saves money for building owners*



This permanent golden-colored nameplate identifies Sanymetal installations. (Actual size, 3/4" x 2")



YOU CAN BE *Certain* OF *Sanymetal* QUALITY AND ECONOMY

YOU CAN BE SURE of getting the quality features, found in *all* Sanymetal Toilet Compartments, which mean longer, satisfactory maintenance-free service. Just look for the nameplate shown above. It now identifies Sanymetal installations to assure you of these, and many other, long-life features:

Sanymetal 7700 Top Hinge . . . so designed that a big man can swing on the door without damage to either door or hardware.

Sanymetal Concealed 7700 Bottom Hinge . . . when tested by independent testing laboratories (with top hinge) to 301,000 cycles of use, showed no wear or breakage—required no maintenance.

Welded Doors . . . welded to form one rigid unit, making a door that stays flat without wind, even after severe abuse.

Trouble-Free Connections . . . hold compartments rigidly and permanently to floor or ceiling, and save labor by easy installation.

Certified Finishes . . . labels (at right) clearly indicate Sanymetal reliability and quality finishes.

Many such features, found on all Sanymetal Compartments, have made Sanymetal leaders, often imitated. Look for the nameplate to be sure of the engineered construction that brings longer service, lower maintenance costs.

See Sweet's, or send for Catalog 93 describing all Sanymetal Compartments. If you wish we will mail you all advertisements in this series explaining construction details that mean quality.





Sanymetal certifies to architects' specification, with these removable labels, that Sanymetal compartment installations are finished with Sanymetal Porcena (Porcelain on steel) and Sanymetal quality synthetic enamel baked on galvanized, Bonderized* steel.

**Product of Parker Rust Proof Co.*

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Get these long-life features, **STANDARD** *on all Sanymetal Compartments*

Heralding a New Era in Fluorescent Illumination . . . Present a Vital





SPECIAL HINGE CONSTRUCTION permits entire lens section to swing open for easy relamping and servicing.

PRISMALUME . . *Great Advance in Control Enclosures for Fluorescent Lighting*

Holophane proudly introduces PRISMALUME, a precisely designed optical element with unique advantages that make it the finest enclosure ever engineered for tubular fluorescent lamps. It is molded accurately to specified shape. It is extremely light in weight. It is shatter-resistant so that it is especially suitable for locations where safety is a prime requisite. The prismatic control provides high-level lighting without accompanying glare. Other salient characteristics: dimensional stability, freedom from discoloration, attractive long sweep appearance.

FOR BETTER LIGHTING BE SPECIFIC . . .

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"LIGHTING FIRST"



REALITE*...

NEW Luminaire Featuring the PRISMALUME* *Enclosure*

- HIGH EFFICIENCY • LOW BRIGHTNESS
- VISUAL COMFORT • UPWARD LIGHT
- LIGHTWEIGHT • CONTINUOUS RUNS
- EASY TO INSTALL • ENGINEERED DESIGN

REALITE . . . *The Ultra-Thin Luminaire with the Distinctive NEW LOOK*

Product of the foremost engineers, REALITE launches a new trend in ceiling-attached luminaires. Its sleek-lined design integrates harmoniously with all types of modern interiors such as: classrooms, offices, banks, stores, libraries, corridors, plants . . . or any area requiring effective, comfortable lighting. The basic four foot and eight foot sections allow combinations for a wide range of applications. REALITE, with the PRISMALUME enclosure, represents the ultimate in comfort, economy, efficiency and beauty in fluorescent lighting. Write for engineering data.

*Trademark

Send Coupon for Complete Data

PA-

HOLOPHANE COMPANY, INC.
342 Madison Ave., New York 17, N. Y.

Please send engineering and installation data on your New REALITE luminaire with PRISMALUME enclosure; no obligation to us

INDIVIDUAL_____

ORGANIZATION_____

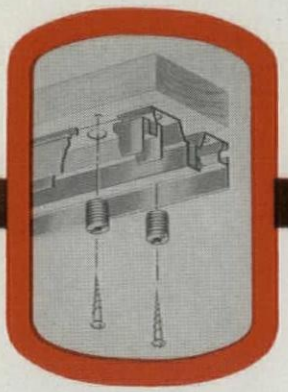
STREET_____

CITY_____ ZONE___ STATE_____

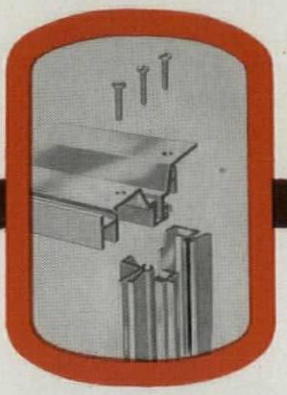
HOLOPHANE COMPANY, INC.
Lighting Authorities Since 1898
342 Madison Ave., New York 17, N.Y.
THE HOLOPHANE CO., LTD., THE QUEENSWAY, TORONTO 14, ONTARIO

Holophane
Trade Mark

Add up these features....



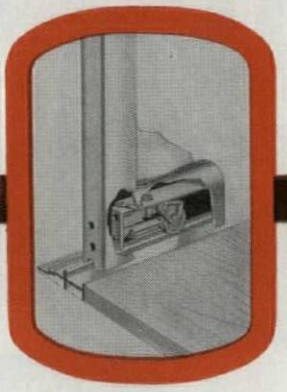
...Adjustable header with continuous strips Mohair pile running full length.



...Easy installation with new rigid frame...may be pre-assembled and installed prior to installation of sash.



...Double Mohair pile weatherstripping at interlocking stiles, preventing air or water infiltration.



...Silent action, floating slide with adjustable ball bearing rollers.



...Attachable fins for easy stucco or shingle installations.



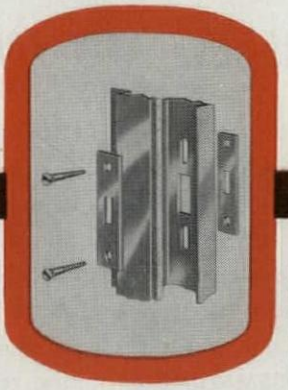
...Moisture cup in track halts condensation from flowing onto floor or carpeting.



...Massive lucite handle.



...Integral sill adapter and kick plate.



...Adjustable strike on jamb.

...Plus These...Doors may be modified for odd-sized openings...Plastic insert in head to prevent rattling...Hollow aluminum extrusions of 6063-T5 alloy.

9 major changes make the

COMPLETELY NEW 1957 SUN VALLEY SENIOR

aluminum sliding glass door...



See Sun Valley Products Booths 470-471 at the NAHB Show, Sherman Hotel, Chicago, Jan. 20-24.

Now, all new engineering and structural design in the 1957 Sun Valley Sr. aluminum sliding glass door provide improved appearance, reduce installation time and assure continuous, trouble-free operation. Designed to the preferred specifications of architects and builders to eliminate problems most often involved in door design, installation and operation.

Sun Valley Sr. meets the needs of all types of installations and is especially styled and built for deluxe use. Includes all features that make a sliding door truly practical and functional.

SUN VALLEY IMPERIAL Sun Valley Imperial aluminum sliding glass door has been designed for heavy duty, all-weather double glazing (including Twindow or Thermopane). Meet demands of the coldest... the hottest climates.

The Imperial features... continuous smooth opening-closing operation with adjustable dual tandem ball bearing rollers... double Mohair pile weather-stripping at interlocking stiles, preventing air or water infiltration... heavy extruded aluminum of 6063-T5 alloy... massive lucite handle.

SUN VALLEY JR. Sun Valley Jr. is the aluminum sliding glass door originally designed, built and priced especially for low budget and multiple housing installations. The ultimate in sliding doors... LOW COST combined with MAJOR FEATURES usually found only in higher priced doors.

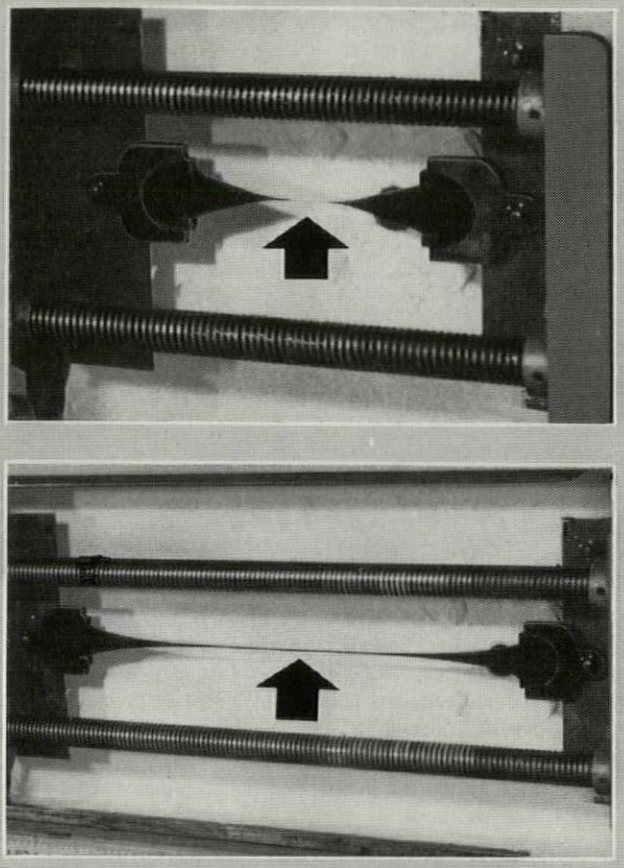
Important new features... double Mohair pile weatherstripping at interlocking stiles preventing air or water infiltration... reversible locking stiles to permit sliding unit to be right or left... functionally designed handle with attractive lucite grip... rigid aluminum extrusions of 6063-T5 alloy... integral sill... kick plate for surface installation.

FREE... Write now for your copy of Sun Valley's illustrated folder on all three doors. You'll receive complete specifications... detail drawings ... door sizes. Write to



SUN VALLEY INDUSTRIES, INC.
Dept. 309, 8354 San Fernando Road · Sun Valley, California

Johns-Manville *Aquadam*® Built-Up Roofs—proved superior by actual tests!



Here's conclusive proof of Aquadam's greater resistance to cracking!

TOP—A typical asphalt is shown at average breaking point of 12 CM.

BOTTOM—This is Aquadam at a 25 CM stretch—100% beyond average—won't break even when stretched to 110 CM.

AQUADAM BUILT-UP ROOFS owe their proven superiority to Aquadam, the special bituminous cementing agent, used in the application of the roofing felts. Aquadam is an exclusive Johns-Manville development.

When applied, Aquadam's excellent adhesive properties create a permanent bond to the felts and to the slag or gravel surfacing. Aquadam's rigidly controlled quality and excellent flow properties assure easier mopping, thorough coverage, longer roof life.

Johns-Manville Aquadam Roofs are specially designed to provide maximum built-up roof service for deck inclines from dead level to ½" per foot. Available in both a smooth-surfaced and a slag or gravel specification.

Your local Approved J-M Contractor is listed in the Yellow Pages of your telephone directory. He will gladly give you complete information about J-M Aquadam Built-Up Roofs. Or, write Johns-Manville, Box 158, New York 16, N. Y. In Canada: 565 Lakeshore Rd. E., Port Credit, Ont.

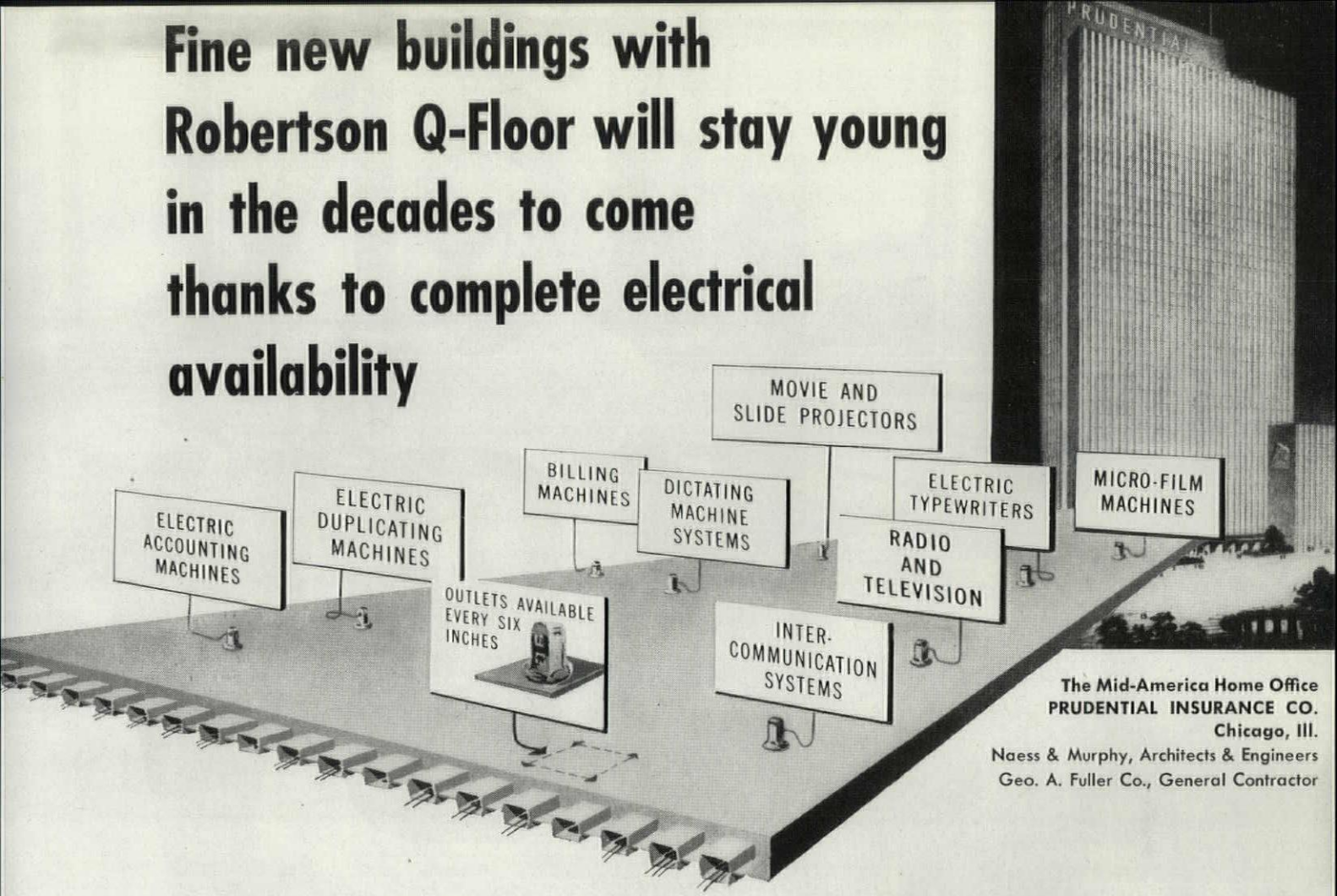
JOHNS-MANVILLE JM PRODUCTS

CHECK THESE 7 IMPORTANT AQUADAM ADVANTAGES:

- ✓ Outstanding resistance to cracking
- ✓ Improved self-healing properties
- ✓ Superior weather resistance
- ✓ Greater kettle stability
- ✓ Exceptional adhesion, stronger bond
- ✓ Greater resistance to water
- ✓ Excellent uniformity

Johns-Manville

Fine new buildings with Robertson Q-Floor will stay young in the decades to come thanks to complete electrical availability

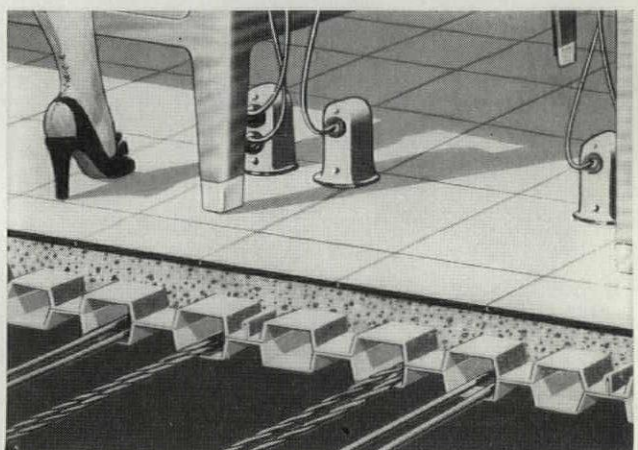


The Mid-America Home Office
PRUDENTIAL INSURANCE CO.
Chicago, Ill.
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When you build with Robertson Q-Floor you assure a long and useful life for your building since you will have provided for any conceivable amount of office automation. The large steel cellular raceways in Robertson Q-Floor, on six-inch centers, make it possible to run wires for electrical and telephone outlets to any point in the building quickly and inexpensively. Thus, no matter how many electrical devices are added or moved, the Q-Floor building will have adequate electrical facilities.

Not only does Q-Floor provide complete flexibility of electrical outlets, but it also saves construction time and money. Weight saved in the floor itself means lesser loads and savings in the supporting foundations and structural steel. And during construction, Q-Floor immediately becomes a safe, fireproof working platform for all trades.

Build for the future while keeping an eye on today's costs by using Robertson Q-Floor. Use the coupon to write for the new 44-page Q-Floor Manual.



Cellular steel Q-Floor construction makes outlet installation easy—provides 100% electrical availability.

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Q-Floor

the original cellular steel floor

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Please send 44-page Q-Floor Manual.

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COMPANY

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Facts You Should Know About Masonry Reinforcement

By Edwin L. Saxer: Professor and Chairman, Civil Engineering Department, University of Toledo

For some time, there has been a growing tendency to rely on steel reinforcing in mortar joints to improve the capacity of masonry walls to resist the stresses which develop.

The usage of joint reinforcement has often proven unsuccessful in the past. The chief reason for this has been the failure to use reinforcement in more than every third or fourth joint—a practice which provides little or no benefit to the intermediate joints.

A contributing factor in many cases has been the inability of some forms of reinforcing to develop adequate bond strength.

As a result of research at the University of Toledo, and at other laboratories, the principles of effective joint reinforcement are now well understood. All indications point to the fact that reinforcement should be used in every joint, or at least in every other joint, to insure reasonable effectiveness.

Our research on the effectiveness of Key-Wall leads us to the following conclusions: (1) The design of Key-Wall results in a highly efficient distribution of steel. (2) The use of Key-Wall can reduce significantly the cracks resulting from shrinkage of the masonry; and (3) Key-Wall is effective in improving the lateral strength characteristics of masonry walls.

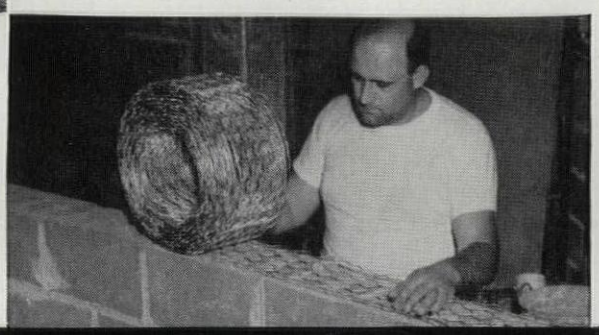
why it pays to specify -wall

the new type of masonry reinforcement that gives greater value at lower cost

The effectiveness of Key-Wall has been clearly demonstrated by tests at the Research Foundation, University of Toledo.

It's being specified and used by leading architects and builders today. It will offer you advantages on any jobs you build.

Key-Wall is made for the following wall thicknesses: 4″, 6″, 8″, 10″ and 12″.



- Reduces shrinkage cracks
- Adds effective lateral strength
- It's galvanized to prevent rusting . . . assures maximum bond
- Lap joints give continuous reinforcement
- Does not interfere with bedding of units
- Improves mortar joint because multi-directional reinforcement holds mortar in place; gives better bond
- Masons welcome it, because it's easy to handle; easy to cut and fit; doesn't interfere with joint thickness
- You save on material cost, as well as labor cost



FREE—SAMPLE AND TEST REPORT

KEYSTONE STEEL & WIRE COMPANY
PEORIA 7, ILL.

Please send me free sample and copy of Key-Wall masonry report made by the Research Foundation, University of Toledo.

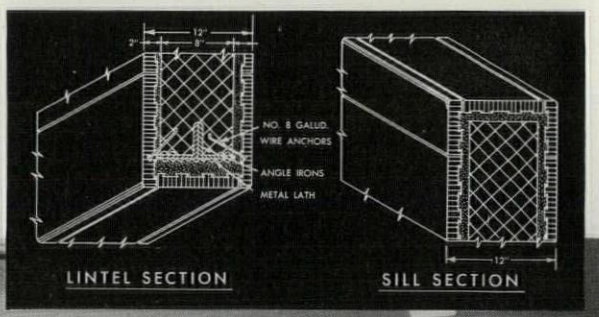
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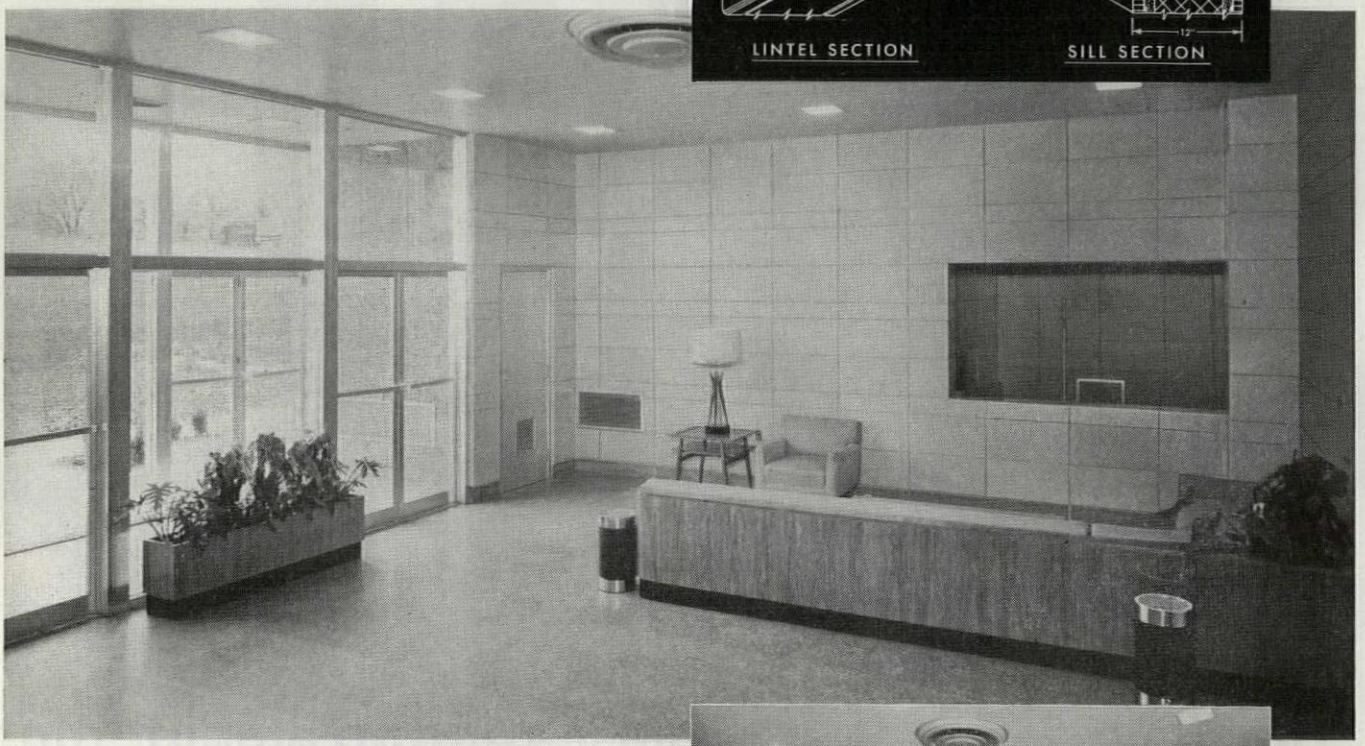
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NASHVILLE DISTRIBUTING HOUSE
Western Electric Co., Inc. NASHVILLE, TENN.
Western Electric Co., Inc. — *Architects*
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Ceramic Veneer in two harmonious shades of green provides durable beauty for reception and switchboard area, mail lobby and walls at stairway. Units are 15" x 26" x 1¼" and 6" x 26" x 1¼".







If your plans call for lasting color and cleanliness consider Ceramic Veneer

Designing colorful interiors that successfully withstand the challenge of time and traffic is simplified when you specify Ceramic Veneer. Whatever color and texture you select from the vast range available, you can be certain the fire-hardened glazed surface will provide enduring beauty. Even in the busiest areas, the original richness of Ceramic Veneer can be retained indefinitely by simple soap-and-water washings. No other building material offers so much in quality, cleanliness, appearance, permanence and price. For lighter weight walls, economical to install, investigate Ceramic Veneer. Write today for latest data on extensive applications of Ceramic Veneer for buildings of all types.

Construction detail, data, color samples, estimates, advice on preliminary sketches, will be furnished promptly without charge on Ceramic Veneer and Architectural Terra Cotta.

FEDERAL SEABOARD TERRA COTTA CORPORATION

F S T C

10 East 40th Street, New York 16, N. Y.
PLANT AT PERTH AMBOY, NEW JERSEY



Anticipate electrical expansion . . .
Cut the cost of future changes now with NEPCODUCT

The time to plan for future alterations and expansion of electrical distribution is now—before the floors are in.

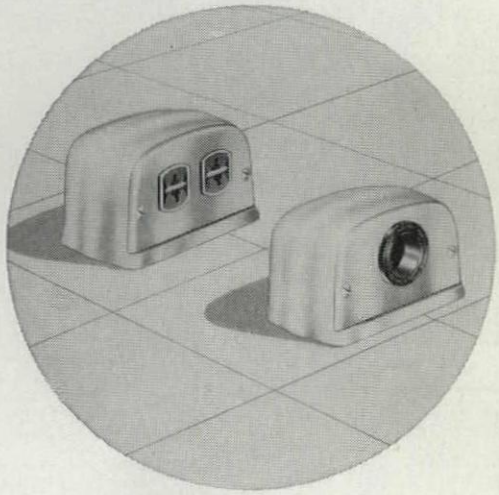
The system that assures these changes can be made conveniently and economically is Nepcoduct—the steel underfloor raceway that makes outlets available at the floor surface wherever and whenever the owner needs them.

With Nepcoduct, future changes in electrical distribution can be made without routing concrete or cutting building structure—without interrupting business operations.

By specifying Nepcoduct, you assure quick, low cost installation in any type floor construction. Nepcoduct can be used as a single, double or triple duct system to provide separate wiring facilities for light and power, inter-communication and telephone. To cut maintenance costs, electrical service is made easily accessible in one junction box through a common hand-hole opening.

To add to Nepcoduct convenience and economy, National Electric offers new service fittings that cut installation time with a simplified one-piece housing. Fittings are especially designed for distribution where modern desks and free-standing equipment restrict the height of service fittings.

Write today for information on Nepcoduct Electrical Raceway Systems.



Listed by Underwriters' Laboratories, Inc.

National Electric Products

PITTSBURGH, PA.

3 Plants • 10 Warehouses • 36 Sales Offices



Open beam ceiling, designed by Architect Reginald Roberts, San Antonio, Texas, was achieved by use of Insulite Roof Deck throughout home.

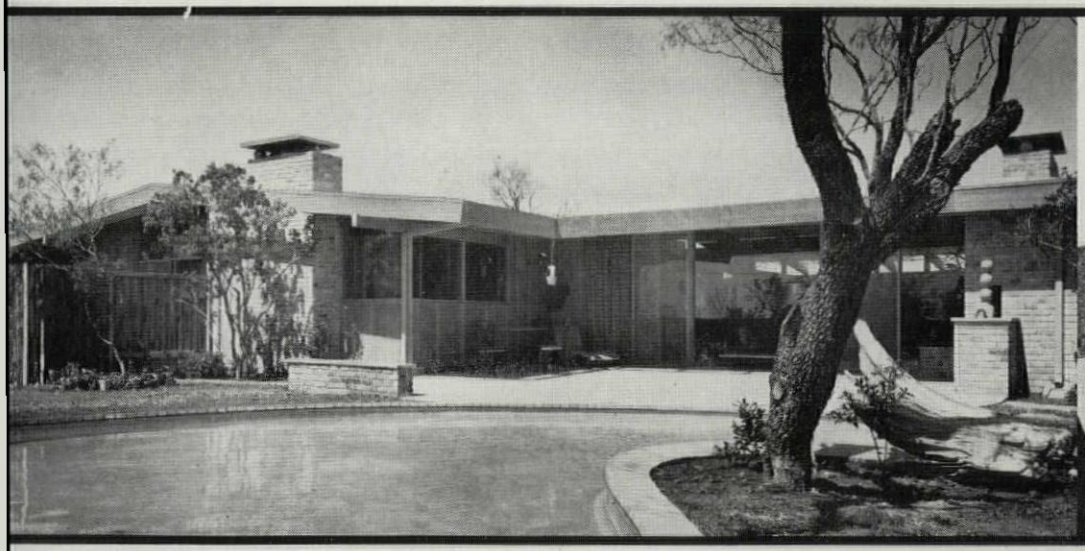
Texas Architect's home designed with Insulite Roof Deck

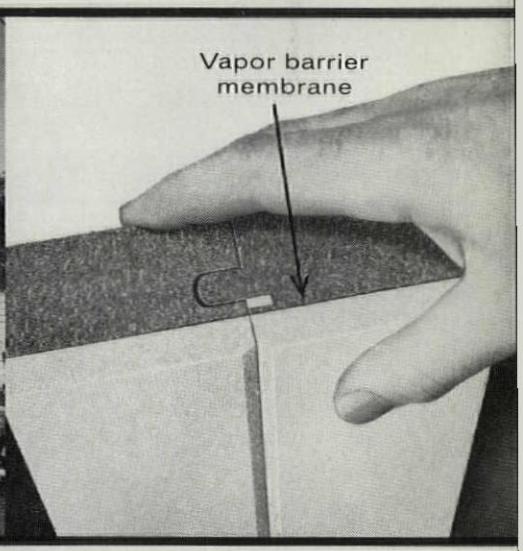
This is the home of Reginald Roberts, A.I.A., in San Antonio, Texas. Here you see the work of an architect free to do everything in the way that pleased him most. The home is notable for open-beam design throughout, accomplished economically by use of Insulite Roof Deck.

Roof-and-ceiling construction used 5,500 square feet of 3-inch Insulite Roof Deck. Under this handsome, low-pitched roof are a living room, dining room, kitchen, utility room, 3 bedrooms, 2 baths, den, workshop, maid's room and bath. The roof also covers a 3-car carport.

Luxurious homes are part of the diversified work of Reginald Roberts Associates. In recent years, a large number of homes designed by the firm have used Insulite Roof Deck—a 3-in-1 material that serves as decking, insulation and pre-finished ceiling. Made in 2'x8' tongue and groove sections, it ordinarily saves about 12 man hours per 1,000 feet of surface as against 2"x6" D&M sheathing.

Want technical data and literature? Write Insulite, Minneapolis 2, Minnesota.





Beautifully adapted to the San Antonio landscape, the home has generous expanses of exterior glass, with angles and overhangs that provide sunlight and shade as desired. Insulite Roof Deck helps keep all rooms delightfully cool.

For any type of job; any climate... Insulite Roof Deck is made 1½", 2" and 3" thick, without vapor barrier; 2" and 3" thick with vapor barrier. No roof boards, insulation, lath or plaster needed. No painting, staining or other finish required on ceiling side.

build better and save with

INSULITE

INSULITE, *Made of hardy Northern wood*

Insulite Division of Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota

INSULITE IS A REGISTERED T. M. U. S. PAT. OFF.



FOUR-LIGHT: 2¾" x 25¾" x 48¾"



TWO-LIGHT: 2¾" x 14½" x 48¾"

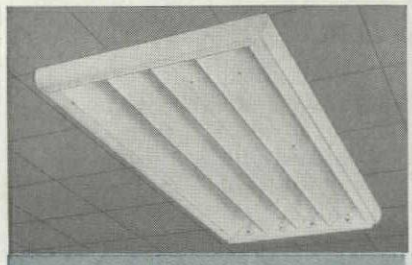
Gibson LIGHTING

GIBSON MANUFACTURING COMPANY

the new Gibson Ceilo•35

ONLY 2¾" DEEP — AND NO DARK AREAS!

In this striking new fixture, Gibson designers have achieved maximum thinness, with no dark panels or strips in the diffusing area. Parabolic reflectors and a unique way of mounting the ballasts provide a smooth, unbroken panel of light in a fixture of incomparable quality and beauty.



PARABOLIC REFLECTORS
The parabolic reflectors reflect all light straight down and thus provide an even distribution of light over the entire diffusing area.



FINGER-TOUCH RELAMPING
Just a touch of the fingertips to the louver latches allows the louver to swing open for relamping. Snap—and it's back in place.

Write today for complete information about the beautiful new Ceilo-35

Makers of the world's most versatile fixtures

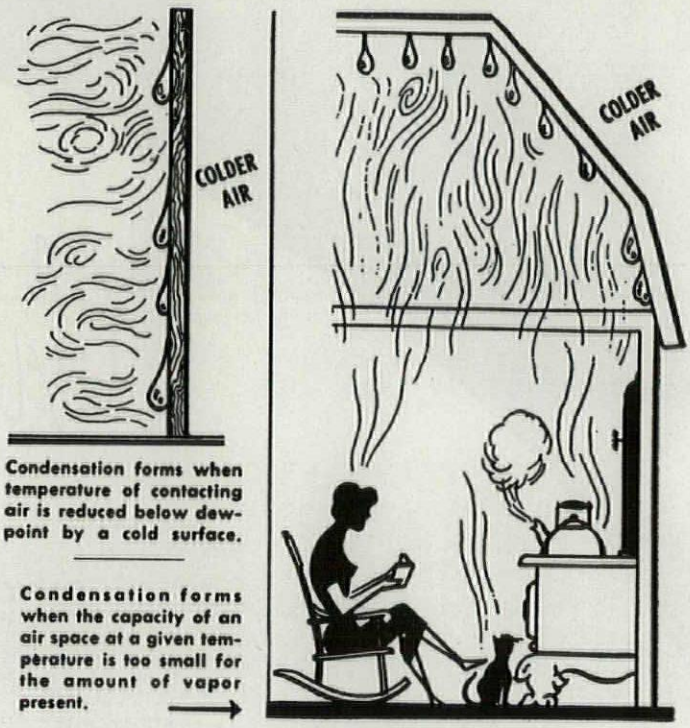
ortho-77® 88©

PAT. PEND.

1919 Piedmont Circle, N.E., Atlanta 9, Ga.

How to Reduce CONDENSATION!

Prevent Damage to Wood, Plaster, Paint, etc.



Condensation forms when temperature of contacting air is reduced below dew-point by a cold surface.

Condensation forms when the capacity of an air space at a given temperature is too small for the amount of vapor present. →

As air becomes colder, it can hold less vapor in suspension. The degree of saturation increases until a dew-point is reached and condensation occurs.

Heat flows from warm to cold by conduction. A material in contact with air colder than itself on one side, warmer than itself on the other side, will *continuously* extract heat from the warmer air by conduction and lose it to the colder air. As the contacting warmer air becomes cooler, the amount of vapor it can hold in suspension without condensing becomes smaller.

The denser and bulkier the material, the more heat it can extract before attaining room temperature, if it *ever* does. The scientific construction of multiple layers of aluminum and air spaces minimizes condensation formation on or within this type of insulation.

THE REASON CONDENSATION IS MINIMIZED

Since the first layer of aluminum adjacent to the warm, inner air of a building weighs only about ¼ oz. per sq. ft., it does not need to extract much heat from that air to attain and remain at room temperature. The emissivity of the aluminum surface is only 3%, so little heat is lost by radiation. This helps the aluminum to remain at about room temperature and not extract much heat from that warmer air.

The other sheets of aluminum and fiber retard heat flow by inner as well as outer convection, and conduction is slight through the preponderant low density air spaces. So the aluminum's other surface faces a space colder than the aluminum itself. Because warmth flows to cold in conduction, the aluminum will *give off a slight* amount of *heat* to the colder space, slightly *increasing* the vapor retaining capacity of that space. The successive reflective spaces and layers of aluminum behave similarly. Since each aluminum surface is slightly warmer than the air it faces on its cold side, no heat is extracted from the colder air; *the reverse is true.*

CONTINUOUS VAPOR BARRIER

When *scientific,* joist-to-joist multiple aluminum is used, fortuitous vapor and water (like rain) which intrude into exterior building spaces will, as vapor pressure develops therein, gradually flow out as vapor, through exterior walls and roofs because vapor flows from areas of greater to less density. The vapor, unable to back up through the long, *continuous, almost impervious* aluminum, will flow out, because exterior walls and roofs have substantial permeability in comparison with aluminum, far greater than the required 5 to 1 ratio. Infiltration under its flat stapled flanges is slight.

The U. S. Bureau of Standards has prepared a helpful and informative booklet, "Moisture Condensation in Building Walls," which deserves your attention. Use the coupon to get a free copy from us.

THERMAL VALUES, INFRA TYPE 4S

Up-Heat	C .105 = 3⅛" non-metallic insulation*
Wall-Heat	C .068 = 4¾" non-metallic insulation*
Down-Heat	C .042 = 7⅞" non-metallic insulation*

*Based on limiting values of Fed. Spec. HH-I-521c

Cost installed between wood joists, material and labor, about 8¢ sq. ft.

Type 6 also available

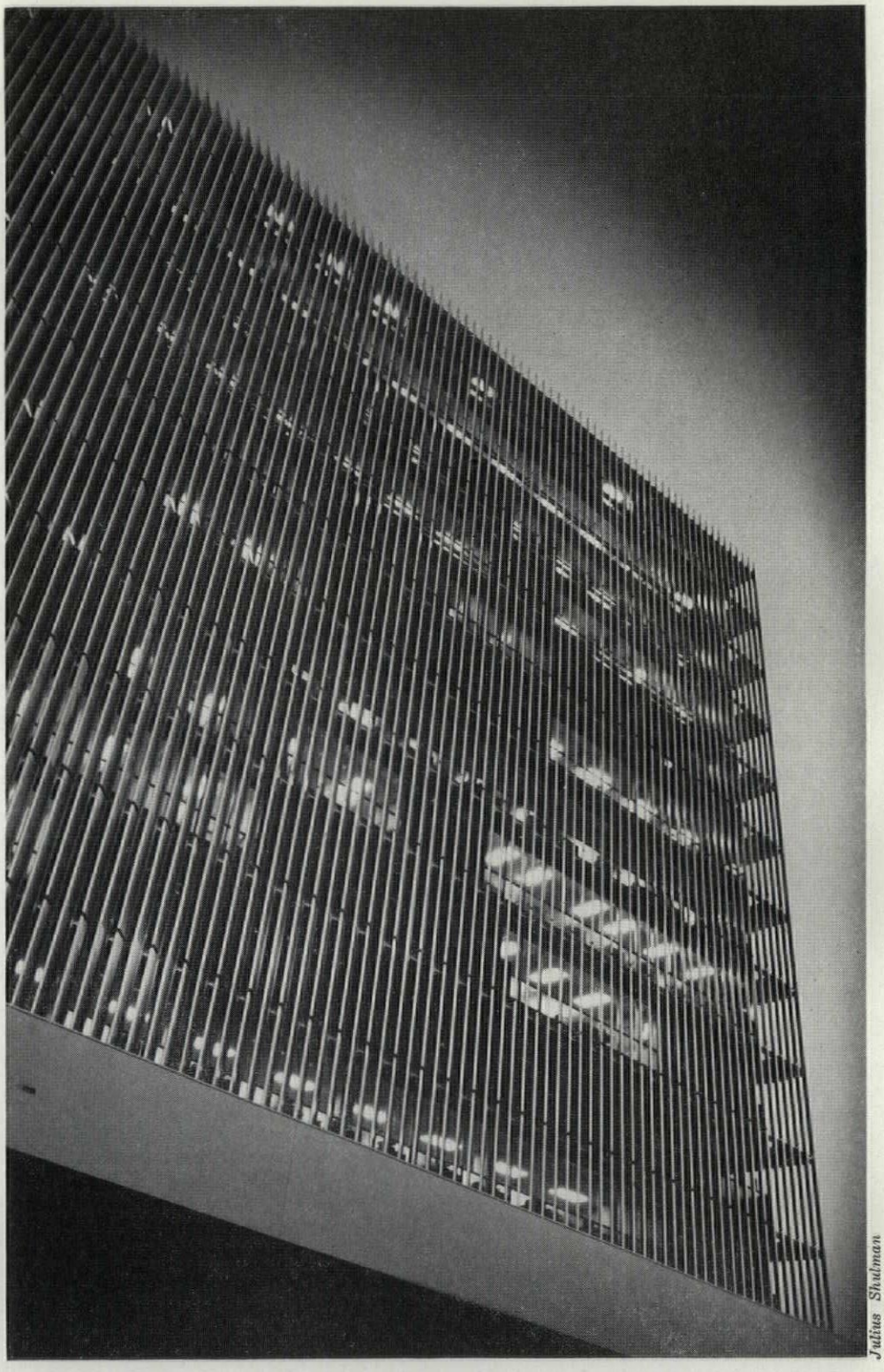
Can be purchased everywhere through your preferred local dealer.

Infra Insulation Inc., 525 Broadway, N.Y.C. Dept. P-I.
Please send National Bureau of Standards Booklet BMS63.

NAME

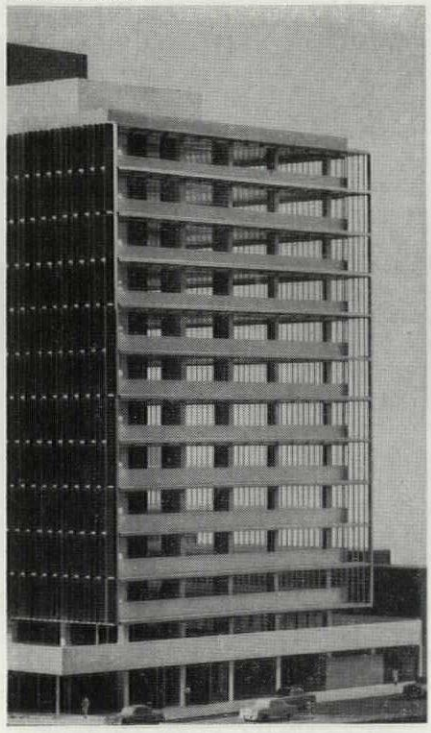
FIRM

ADDRESS



Julius Shulman

Gordon Sommers



13-STORY TOWER FEATURES TOTAL SUN CONTROL

LOS ANGELES, CALIF., Dec. 15—Recently completed on Wilshire Boulevard is the new limit-height Tishman Building, for which Victor Gruen & Associates were architects. Most outstanding element of the steel-framed structure, which will be fully presented in a forthcoming issue of P/A, is the complete exterior cage of aluminum sun-control louvers—installed vertically on east and west façades, horizontally on north and south walls. A five-level garage that provides parking far beyond legal requirements is an integral part of the building.

P/A BUSINESS FORECAST FOR 1957

The seventh Annual Business Survey of the architectural profession, conducted by PROGRESSIVE ARCHITECTURE with the co-operation of architectural firms from every part of the country, shows the profession to be in a very healthy condition. No matter how the statistics are measured and evaluated, bellwether signs indicate continuing activity at high average and median levels. The basic measurement —average $ volume of work now on the boards— has gone up to $4,113,000—an increase over last year's average of $181,000 or 4.6%.

This Survey has proved useful as an early barometer of construction activity, since it is based not on contracts awarded, on the one hand, or on guesses and estimates on the other, but on actual architects' commissions now being worked on in the design and specification stage—commissions which will result in contracts and construction during 1957. Of the total volume, as of November 1, 1956, architects reported:

47.6% in preliminary design stage.
52.4% in working drawing stage.

This seems a healthy distribution in the nation's drafting rooms; a drop-off in working drawings commissioned might indicate a forthcoming slowing up of actual construction; a drop in preliminaries commissioned would have hinted at a drying up of jobs to be built late in the year. Neither of these seems imminent.

One other over-all fact seems clear from the Survey: a large part of the architect's work today is for public agencies of one sort or another—from the local school board to Federal Departments. Of the total volume, the architects reported:

55.5% commissioned by private clients.
44.5% commissioned by public agencies.

While the proportion of "public" work might seem high, it is easily accounted for when one also realizes that 22% of the work reported is in the Educational field; 12.4% is for Public Use buildings (libraries, town halls, and the like); and 11.4% is for Multi-family Residential work, a segment of which is public housing. Publicly owned Health structures, and a sizable amount of design for Defense purposes account for most of the remainder.

The increase in $ volume reported by the average firm has not meant an appreciable growth in size, by number of employes, of the average or the median office. Average number of employes is still between 10 and 11, and the median firm employs 4, as it has for the past several years. (In 1950 these figures were approximately 9, average; and 3, median.) Nor has there been a great change in the ratio of small, medium, and large firms, judging either by number

Table 1
Number of Firms Reporting and Regional Distribution

Region	% of firms
1 Northwest	7.4
2 North Central	10.6
3 Great Lakes	9.9
4 Northeast	25.4
5 Southeast	10.0
6 Gulf States	6.1
7 Central States	8.0
8 Texas	7.1
9 Western Mountain	4.8
10 California-Nevada	10.7
	100.0

This year, 1956 architectural firms responded to P/A's questionnaire. Of this total, 174 reported retirement or withdrawal from practice for some other reason. Thus 1782 usable returns were tabulated. By regions, these responses were distributed in a ratio very close to previous P/A Business Surveys, and to the 1950 Survey of the AIA. As in previous years, P/A Editors believe that this Table can be taken as a reasonably reliable indication of present geographic distribution of architectural firms.

Table 2
Average Dollar Volume

Region	Average $ Volume
1 Northwest	1,828,000
2 North Central	3,607,000
3 Great Lakes	4,692,000
4 Northeast	4,863,000
5 Southeast	3,969,000
6 Gulf States	2,142,000
7 Central States	2,254,000
8 Texas	2,931,000
9 Western Mountain	2,599,000
10 California-Nevada	8,230,000
National Average	$4,113,000
(National Median	1,550,000)

California, last year in third place, now reports the largest average of work on the boards—primarily because of the growth of a number of very large firms (California's median is very close to that of the rest of the country). Regions 3 and 4, top leaders in previous years, have dropped to third and second places. The Northwest continues to have the lowest average.

Table 3
Dollar-Volume Averages and % Distribution of Work by Types of Buildings in All Regions

Type	% of Average Architect's Work	$ Volume Average Office
Commerce	16.5	676,000
Education	22.0	906,000
Health	7.5	306,000
Industry	17.0	696,000
Public Use	12.4	511,000
Religion	5.7	237,000
Residential (Multiple)	11.3	467,000
Residential (Private)	3.7	153,000
Miscellaneous	3.9	161,000
Total (average office —all regions)	100.0	$4,113,000

Design for Education still provides the largest proportion of the average architect's business; design for Industry and Commerce the next largest. A slight drop in the relative importance of these two leaders since last year's survey is taken up by an increase in the relative value of Public Use design.

Table 4
Activity of Architectural Firms in Types of Buildings

Types of Buildings	% of Architects Reporting Current Work
Commerce	48.3
Education	52.1
Health	24.2
Industry	26.4
Public Use	29.0
Religion	46.2
Residential (Multiple)	20.0
Residential (Private)	46.6

This table indicates the number of firms reporting that the various types of buildings listed are currently on their boards. Educational work (also highest in average $ volume among types of buildings) occupies more architects than any other category. However, it is interesting to note that private residential work and religious design, both comparatively low in average dollar percentages for the architect, each occupy the boards of 46% of the nation's architects.

Table 5
Specialization of Architectural Firms

Types of Buildings	% of Firms doing only this type
Commerce	1.8
Education	2.9
Health	.1
Industry	.9
Public Use	1.0
Religion	1.5
R sidential (Multiple)	.2
Residential (Private)	3.4
Total Specialists	11.8

More firms than ever before reported to P/A that 100% of their current activity is concentrated on one type of building alone. There were 200 "specialists" reporting this year, or approximately 12%, whereas last year at this time only 6% of the reporting firms were so specializing. There seem to be two reasons for this: a continuing concentration on school work in many parts of the country; and a large number of new firms, relying so far on residential design.

Table 6
Sizes of Architectural Firms

Size of Firm by Number of Employes	% of National Total
No employes (principals only)	4.9
1 to 4 employes	51.6
5 to 9 employes	23.0
10 to 19 employes	12.0
20 to 39 employes	5.2
40 to 99 employes	2.2
100 and more employes	1.1
	100.0

Size of Firm by $ Volume of Work on Boards	% of National Total
Under $1 million	41.5
$1 million to $10 millions	51.2
$10 millions to $50 milions	6.2
Over $50 millions	1.1
	100.0

Relative sizes of architectural firms, judging by either $ volume of work or number of employes, has not appreciably changed from previous years. Almost 80% of the firms reporting employ less than 10 people, almost exactly the percentage reporting that fact last year. Almost 93% of the offices are doing less than $10 millions of work (last year the figure was 96%). At the other extreme, a fraction more than 1% of the architects' offices employ more than 40 people, and do more than $50 millions of design.

of employes or by $ volume of work on the boards. Evidently a larger increase in business handled is needed before it becomes necessary to employ many more people.

Examining the results of the Survey by regions, it appears that California, the Northeast, and the Great Lakes areas produce the largest average volume of work, and boast the greatest average number of employes. Among these three (consistently the leaders in P/A's Surveys) California has, however, jumped into the lead by both measures—primarily because of the growth there of a number of exceptionally large firms.

Work in the category of Education still produces the largest $ volume of work in the average architect's office (with a slightly lower percentage than last year) and also appears more than any other type of building on the boards of more architects. A slight drop is reported also in the relative amount of commercial work being designed, and a slight rise in the Industrial category. Other types of buildings hold very close to last year's averages.

Difficult to evaluate is the sharp increase of the number of firms reporting 100% of their activity in one type-of-building category or another. Almost 12% of the reporting firms are thus specializing in their design activities. On the other hand, the various building categories are well spread over the remaining nonspecialist firms; private residential work, for example, has a place in 46% of the offices, and Religious design in a like percentage.

Although the volume of work in the average architect's office has increased, and regional averages have similarly become greater in most instances, obviously not all firms have benefitted. Some small and new firms are having their ups and downs; others have had a steady increase in business. Inevitably, some older firms with partners reaching retirement age drop off in business. The large firm occasionally finds it has over-reached, and begins to retrench.

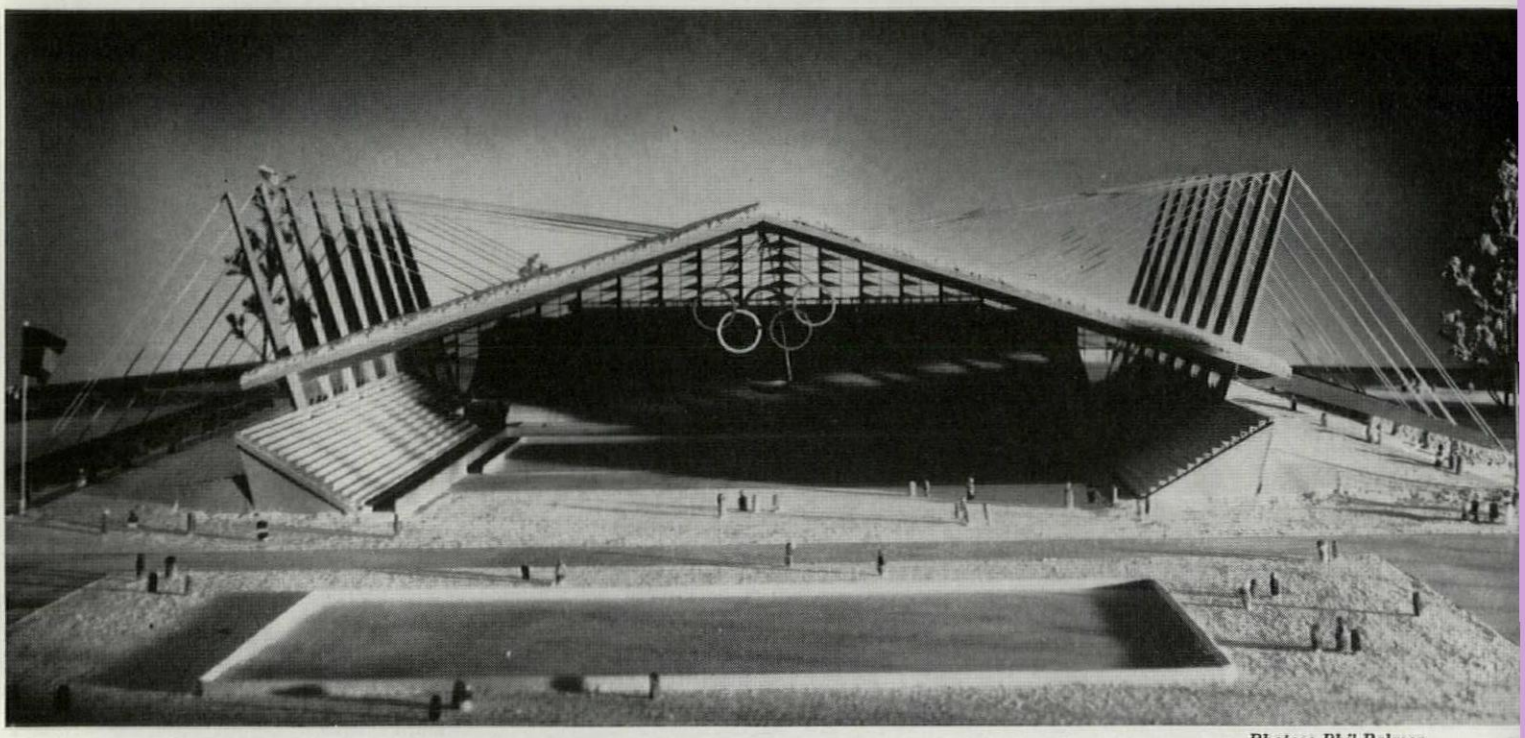
However, in a period of over-all prosperity, the percentage of increases will naturally be greater than the proportion of decreases in business volume. This year, P/A's Business Survey indicates that:

63.5% of architectural firms reporting are doing more work than at the same time last year.

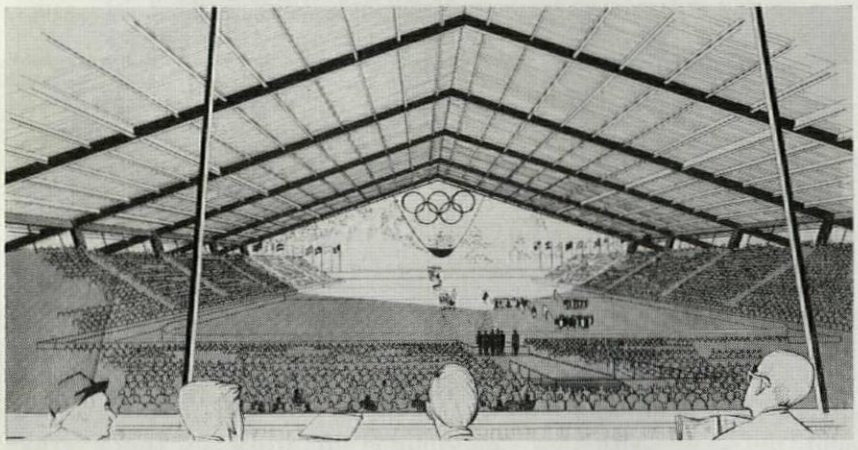
22.8% of architectural firms reporting are doing less work than at the same time last year.

13.7% of architectural firms reporting are doing approximately the same volume of work this year as last.

PLANS ANNOUNCED FOR 1960 WINTER OLYMPICS



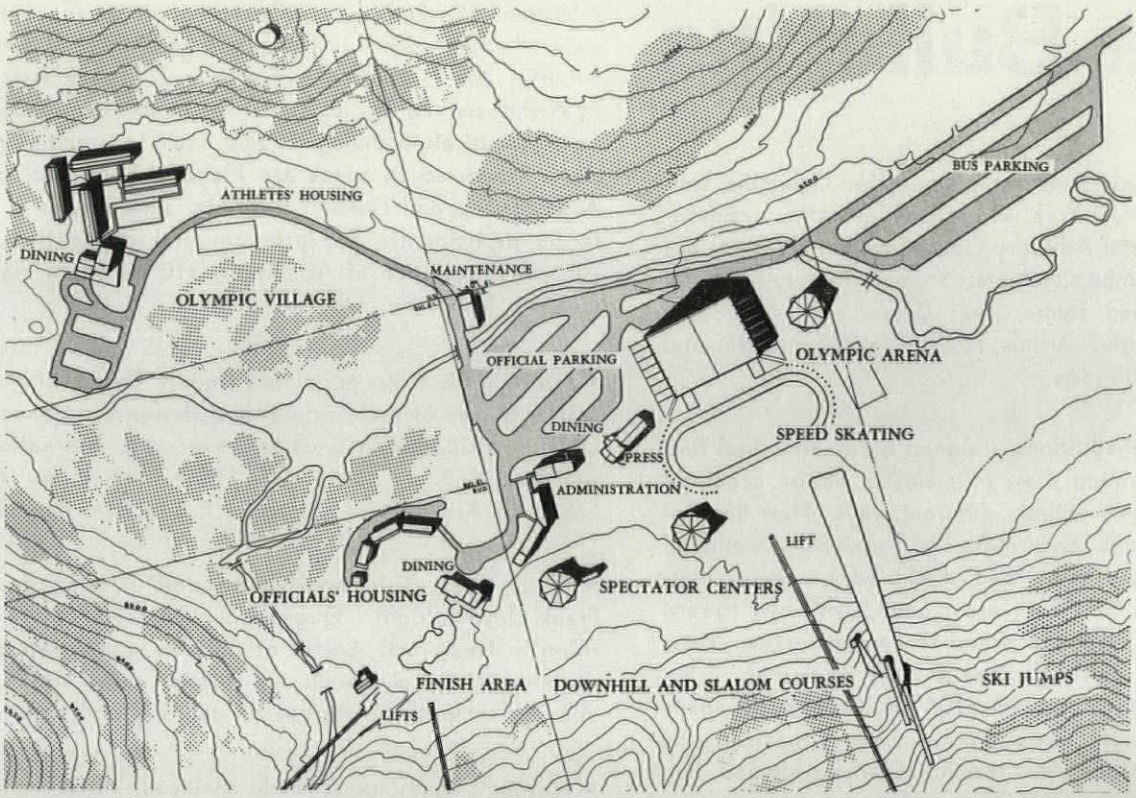
Photos: Phil Palmer

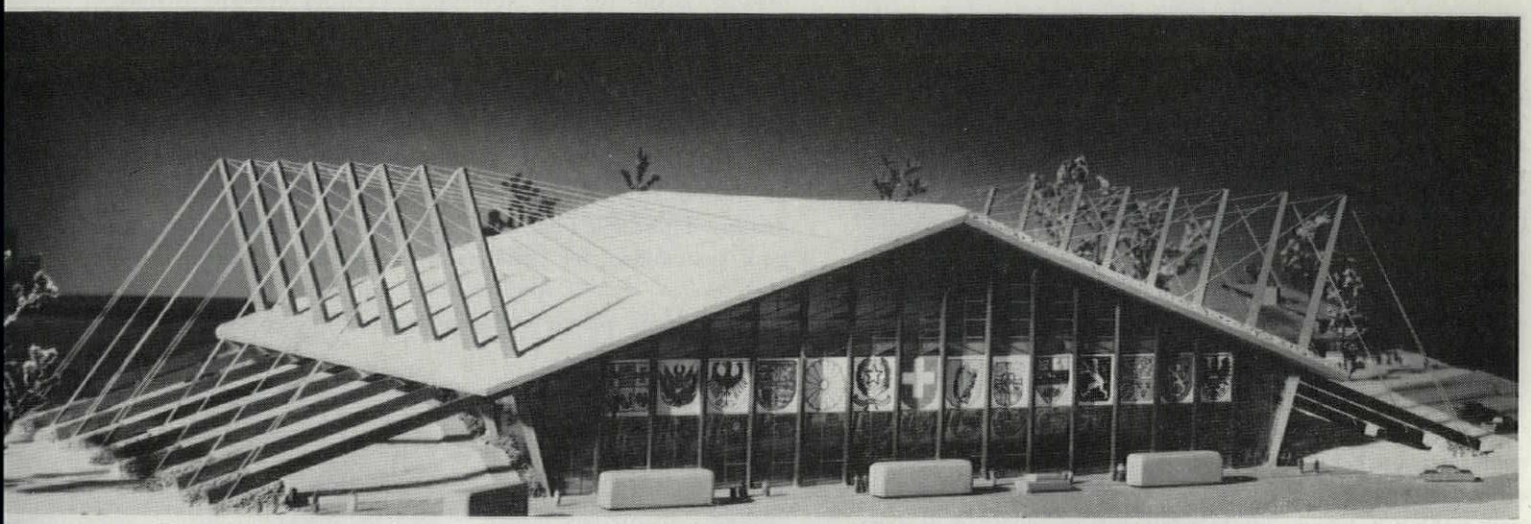


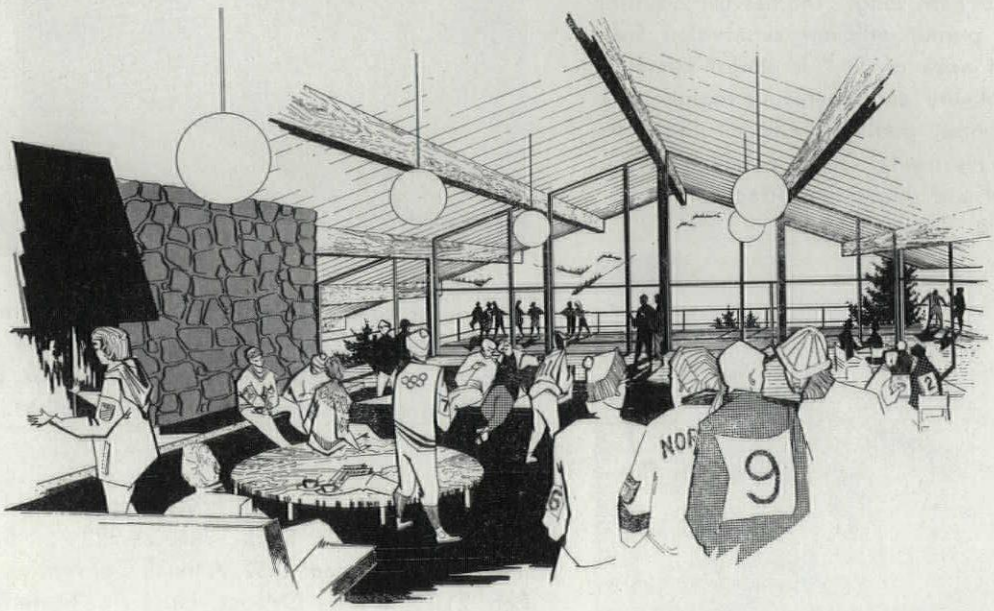
SQUAW VALLEY, CALIF., Dec. 2—Construction of facilities for 1960 Olympic Winter Games has started here—the first time in history in which all events will be centralized in a single area. Associated Architects are Corlett & Spackman and Kitchen & Hunt; Structural Engineers, H. J. Brunnier and John M. Sardis.

Most prominent of the numerous structures is the dramatic Olympic Arena, seating 8000, that will shelter the hockey and figure-skating rink. Enclosed on three sides, it is fully opened to the warming sun from the south. To cope with extraordinary snow loads, a remarkable structural system is employed, providing a 300-ft clear span. Main supporting frames consist of tapered columns built up from steel plates, tapered steel box girders, and inclined cable tension members, with each half of the frame acting independently somewhat in the manner of a guy derrick, with the roof girder functioning as the boom, the column as the mast, and inclined cables as the guys. Cable anchorages are concrete and masonry "dead men" with roof girders extended to resist horizontal thrust. Above frames are steel purlins and cellular-steel roof decking.




ATHLETES' HOUSING
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OLYMPIC VILLAGE
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BUS PARKING
OFFICIAL PARKING
OLYMPIC ARENA
DINING
PRESS
SPEED SKATING
ADMINISTRATION
LIFT
DINING
OFFICIALS' HOUSING
SPECTATOR CENTERS
FINISH AREA
DOWNHILL AND SLALOM COURSES
SKI JUMPS
LIFTS

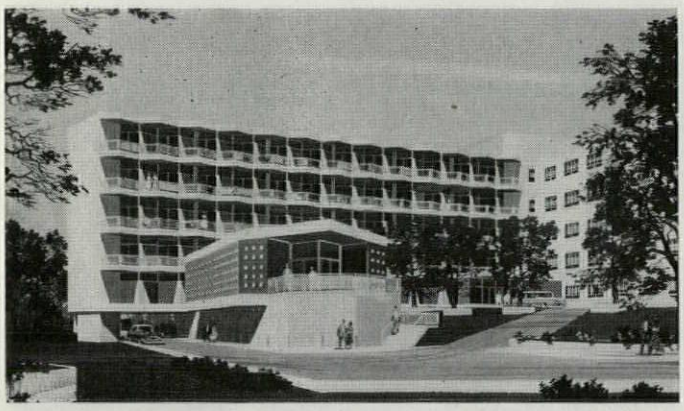



9

News Bulletins

• To insure that new buildings planned for Columbia University's campus, New York, will receive esthetic consideration, an Architectural Advisory Council of five members has been formed. Members, selected from University's Faculty of Architecture and alumni, are: Dean Leopold Arnaud, Prof. Charles Rieger, Arthur Holden, William Platt, and Frederick J. Woodbridge.

• Two new hospital-additions designed by architectural firm of Stevens & Wilkinson show how similar design problems can be solved in two entirely different ways. New hospital wings are being built concurrently for Tallahassee Memorial Hospital, Tallahassee, Fla., and Archbold Memorial Hospital, Thomasville, Ga. Both are planned with eye toward further expansion; both are joined to central service areas; both employ sun control devices as part of design. Tallahassee wing (below) will provide: 100 additional beds; emergency and outpatient departments; nursery, medical, and surgical units; 200-seat auditorium. Diamond-shaped bal-



conies for each room act as sun screens and create interesting shadow patterns. Alternating solid-panel and glass walls behind balconies insure privacy from windows of existing hospital, adjacent to new wing. Thomasville addition (below), "Y"-shaped to permit efficient supervision from nurses station located at apex of "Y," is almost complete hospital in itself with delivery and operating rooms, cafeterias, private dining rooms, pediatric and nursing units, in addition to 72 beds. Horizontal louver panels over windows provide sun control and decorative effects.

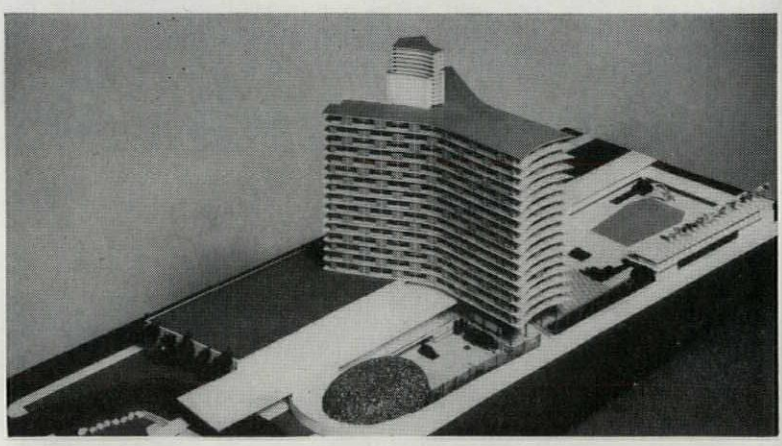


• Session '57—2nd annual Canadian-American conference on achitecture—will take place at Banff School of Fine Arts, Alberta, Jan. 21-26, under direction of Alberta Association of Architects. Panel discussions will concentrate on biological-sociological-psychological approach to architectural design. Scheduled to speak are Richard J. Neutra, George A. Lundberg, and Norbett L. Mintz. Attendance is limited to 50 participants. For program and applications write: Alberta Association of Architects, 310 Northern Hardware Building, Edmonton, Alberta, Canada.

• James S. Plaut was appointed Deputy Commissioner General in charge of architectural and design programming for U. S. participation in Brussels Universal & International Exposition, 1958. . . . Samuel T. Hurst will be new dean of School of Architecture, Alabama Polytechnic Institute.

• Twenty-one artists openly censured interior design of Frank Lloyd Wright's Guggenheim Museum Building, now rising in New York. Letter of protest to museum director declared that angled walls and inclined ramp are "not suitable for sympathetic display of painting and sculpture."

• Havana's handsome Avenida Malecon, bordering Gulf of Mexico, is site for new 400-room, 19-story Havana Riviera Hotel (below), now in process of construction. When completed in December, 1957, $12-millions reinforced-concrete structure will provide two dining rooms, cocktail lounges, night club, laundry, and snack bar on main floor; coffee shop, cafeteria, and 10 shops at basement level. Site will be developed to include: oval-shaped gambling casino approached through sunken garden; dining terrace; swimming pool surrounded by cabanas with adjoining parking area and service court. Angled walls composed of glass and concrete-block panels will afford clear view of water from



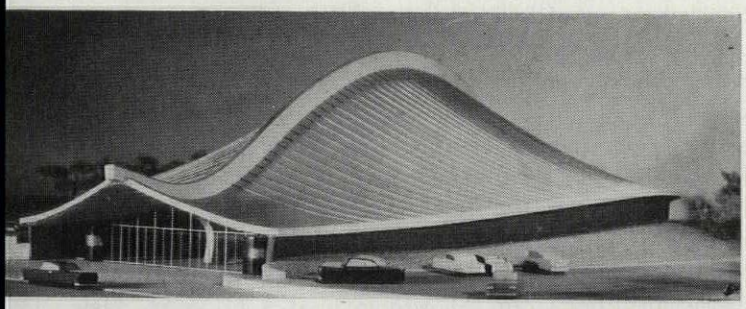
rear guest rooms. Utility tower at "Y" intersection will enclose elevators and stairs. Building will be fully air conditioned and heated. Architects are: Igor B. Polevitzsky and Johnson & Associates, Miami, Fla., and Manuel Carrera, Cuba.

• Society of Architectural Historians will hold 10th Annual Meeting in Detroit, Mich., Jan. 24-27. . . . Building Stone Institute announced 1957 Annual Convention will be held Feb. 21-23 in New Orleans, La. . . . "Materials Handling,

Key to Automation" is theme of 7th national Materials Handling Exposition to be held Apr. 29-May 3 in Philadelphia, Pa., in conjunction with annual American Materials Handling Society banquet and conference.

• Winners of 1956 Leather Design Competition were recently announced. Cash awards in six design classifications went to: Bonnell Irvine, New York, N. Y.; Dave Zeese, Detroit, Mich.; Jack Lenor Larsen, New York, N. Y.; Albert Andrews and Ray Robins, Chicago, Ill.; Mr. & Mrs. James Howell, Providence, R. I.; Louisa K. Cowan, Lancaster, Pa.; Lyle Reynolds Wheeler, West Los Angeles, Calif. Winning designs will be presented at Leather in Decoration Show opening Jan. 7 at Merchandise Mart, Chicago, Ill.

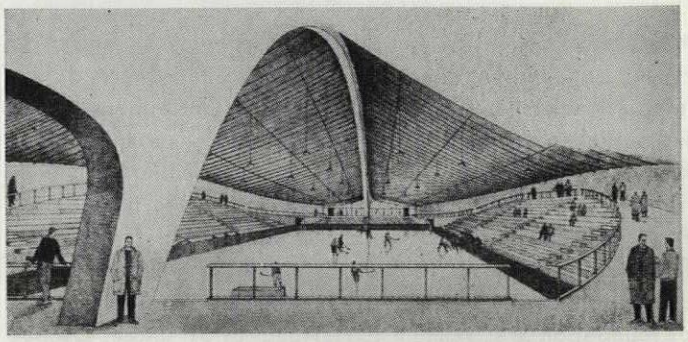
• Oddly shaped aluminum roof will characterize Yale University's new hockey rink (below) when construction begins in spring of this year. Arena, to be called David S. Ingalls Rink, will seat 3000 spectators for hockey games and 5000 for assemblies not requiring ice surface. Oval concrete foundation will form base of structure as well as integral part of interior seating area (right). Structure will be dominated by huge, curving arch running length of building; aluminum roof suspended by cables from arch will provide uninterrupted interior space. Glass and aluminum wall will mark main entrance. Eero Saarinen designed $850,000 rink which is expected to open in time for 1957-58 season.



• International Council at the Museum of Modern Art, Inc. —outgrowth of Museum's soon-to-expire International Program of circulating art exhibitions initiated in 1952—will greatly expand aims of earlier organization and institute worldwide exchange program of exhibitions in visual arts. Whereas former Program was financed largely by foundation grants and government agencies, new Council aims to enlist support of privately sponsored organizations. Future projects include: U. S. participation in major art exhibitions in Europe and Latin America; internationally circulated exhibition of American avant-garde painting. Officers of Council are: Mrs. John D. Rockefeller, III, President; Mrs. Bliss Parkinson and Ralph F. Colin, Vice-Presidents; Alex L. Hillman, Treasurer; Mrs. Richard Rodgers, Secretary.

• University of Pennsylvania is offering several Research Fellowships, Graduate Scholarships, and Assistantships to applicants holding degrees in Landscape Architecture or Architecture. Grants ranging from $1,500 to free tuition plus $500 stipend are available. Applications due Mar. 1. Write: Dean, School of Fine Arts, University of Pennsylvania, Philadelphia 4, Pa.

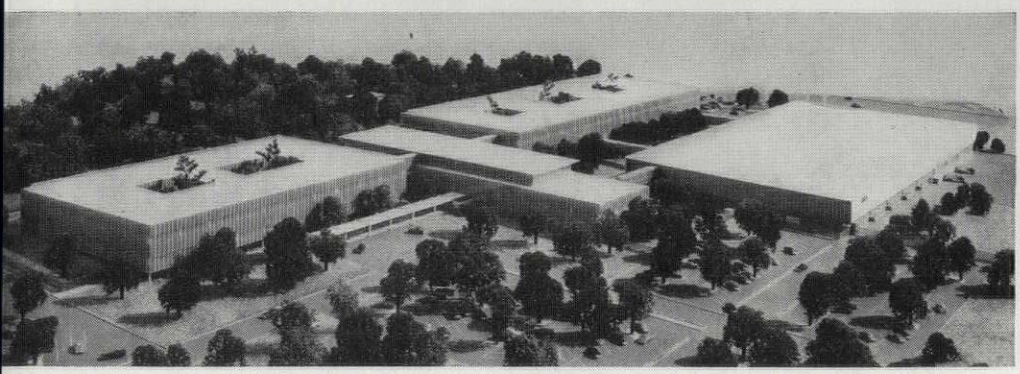
• National Institute for Architectural Education announced election of following officers for 1957: Chairman, Board of Trustees—Giorgio Cavaglieri, Architect, N. Y.; Vice-Chairman—Joseph Judge; Secretary—Arthur S. Douglass, Jr.;



Treasurer—Otto Teegen, State University of N. Y. Architect. New Trustees are Jose A. Fernandez; Esmond Shaw, Head of Department of Architecture at Cooper Union.

• First National Home Improvement Congress will be held Feb. 1-2, in Tucson, Ariz. HHFA Administrator Albert M. Cole will be featured speaker at Congress which was called in order to review and document 1956 expansion of home improvement and to plan for further expansion of $15-billions market in 1957. . . . 13th International Heating & Air-Conditioning Exposition is scheduled to run from Feb. 25-Mar. 1, at International Amphitheatre, Chicago, Ill. . . . American Society for Testing Materials will hold annual Committee Week and Spring Meeting in Philadelphia, Pa., Feb. 4-8.

• Guided-missile control systems and problems of flight through outer space will be chief projects of $15-millions research and development center to be built by Avco Manufacturing Corporation. Project will cover 400,000 sq ft of 100-acre site in Wilmington, Mass. Four buildings (left) of unified design, situated in heavily wooded area, will house laboratories, administrative and scientific offices, and experimental facilities for more than 1500 employes. Buildings, designed by Pereira & Luckman, are planned to permit 100 percent expansion and space rearrangement for future needs. Center should be ready for occupancy in mid-1958.



• Sidney L. Strauss Memorial Award was presented to Charles Rockwell Ellis, Syracuse, N. Y., at 50th Anniversary Dinner of N. Y. Society of Architects, in recognition of his outstanding contributions to architectural profession.

• At N. Y. Chapter of AID dinner, Dec. 13, first Elsie de Wolfe Award was presented to Mrs. Vanderbilt Webb (right) for "inspiring contribution" to American decorative arts. Notable achievements: founded Crafts Horizons, America House, American Craftsmen's Council, Museum of Contemporary Crafts.



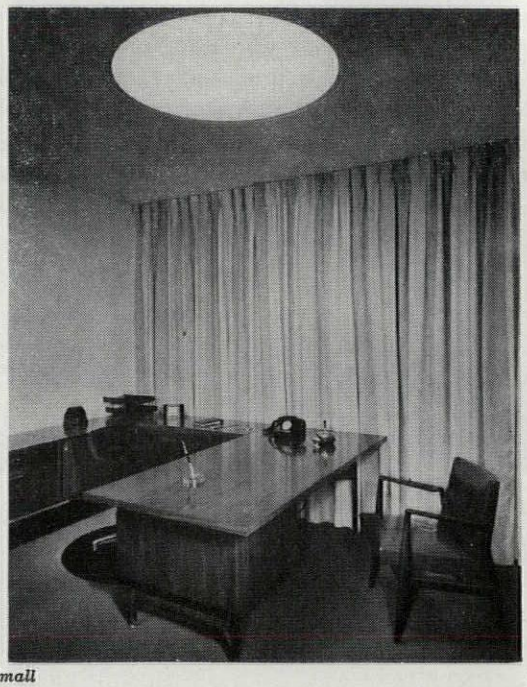
• Graham Foundation for Advanced Studies in Fine Arts recently opened headquarters in Chicago and awarded nine international fellowships in visual arts to: Chicagoans Henry M. Callahan, photographer, Joseph Goto, sculptor, and Paul Nelson, architect; San Franciscans Walter Kuhlman, painter and Keith Monroe, sculptor; Harry Bertoia, Barto, Pa., sculptor; James Davis, Princeton, N. J., film maker; Frederick J. Kiesler, N. Y., designer; Jean Leymarie, Geneva, art critic. Similar awards will be made annually. Officers of foundation are: William E. Hartman of Skidmore, Owings & Merrill—Director; John Ely Burchard, Dean of Humanities at MIT—General Advisor; Charles F. Murphy, executor of Graham estate—President.

• Opening of Ninth Annual Program of National Honor Awards of AIA has been announced. Awards will be made for distinguished accomplishment in architecture by American architect for any building in U.S. or abroad completed since Jan. 1, 1952. Entries due Mar. 7, 1957. For full information write: AIA, 1735 New York Ave., N.W. Washington 6, D. C. . . . Design problem for 1957 Indianapolis Home Show competition will be suburban house for retired couple. Architects and students are eligible to contend for prizes ranging from $1000 first prize to six $50 honorable mentions. Applications due Jan. 15; drawings due Feb. 15. For further data write: Indianapolis Home Show, Inc., 1456 N. Delaware St., Indianapolis 2, Ind.

• Architects are invited to participate in Architectural Exhibit of Church Building to be held in conjunction with Annual National Joint Conference on Church Architecture in St. Louis, Mo., on Feb. 26-28. Entries, due Feb. 1, must be churches erected in U.S. or Territories since 1953. For entry rules write: P. John Hoener, AIA, Registrar, Church Architectural Guild Conference, 4227 Watson Rd., St. Louis 9, Mo. . . . Plans for Architectural Design and Model Home Competition for students only were announced by N. Y. Chapter, AIA. Competition will be part of "Showcase For Better Living"—International Home Exposition scheduled for May 4-12 at New York Coliseum. For details write: Mr. York, c/o "Showcase For Better Living"—Architectural Contest Committee, 250 W. 57 St., New York 19, N. Y.

• Lightolier's Commercial Lighting Showroom—intended primarily for use of architects and builders—is first of its kind in New York. Exhibition of latest ceiling construction and lighting fixtures in actual use, departs from conventional showings of isolated units. Twelve different types of commercial lighting demonstrate ideal installation for given room construction and specific seeing tasks. Showroom space is broken up into model office areas. Reception area and corridor (below left) features recessed incandescent fixtures for down-light and indirect illumination. Model Executive Office (below right) features convex "plexiglass dome" for warm, diffused light. Interiors are designed by Michael Saphier Associates, Inc.; ceilings by William J. Scully Acoustics Corp. Showroom is at 9 E. 36 St., New York, N. Y.





George Small

Washington Report

by Frederick Gutheim



With the new year there is always a temptation to scan a wide panorama. Washington is a national city, and many things that happen here take on a more than local significance. But far more important, it is also the scene of events and decisions that affect the nation. The two are intertwined.

• My erstwhile colleague, Carl Feiss, in his capacity as President of the local chapter of the American Institute of Planners, pointed out recently that the national interest in the Federal City has waned to the point where the District of Columbia might well be given back to the State of Maryland. A thought-provoking proposal (which stirred a good deal of newspaper comment—and drew a prompt refusal from the Governor of Maryland), but one wonders if the idea of a national capital city is as dead as all that!

• Among the things that are happening here, which I regard of national importance, and have written about in recent months, are some that command a measure of attention because they are typical but more because they are unique to capital cities. We are struggling here with plans for an auditorium and cultural center, and in a separate project, for a stadium. While both are regarded as endowed with National Showcase characteristics, they are essentially the same kind of project that has struggled to realization in Schenectady or St. Paul. We have the nation's most impressive urban-redevelopment project in Southwest Washington, where William Zeckendorf has gallantly and successfully played Saint George to the local dragons. This, too, is a project tinged with national significance.

• Of more strictly national importance are such current happenings as the removal of the temporary Government buildings that clutter the downtown parks. This activity has aroused national interest, I am surprised to learn whenever I travel, and it is gratifying to report steady progress in the removal of the "tempos." One only wishes the new permanent buildings that take their place, whether in the center of the city (like the State Department), or in dispersed locations (like the Atomic Energy Commission, Bureau of Standards, or Central Intelligence Agency headquarters) were as good architecturally as the best Federal structures elsewhere in the nation.

• The Capitol itself stands at the head of our uniquely Federal buildings. One regrets to report that unless Congress has a last-minute change of heart, the removal of the temporary inaugural stands and the historic East Front will be practically a continuous operation. Among the other buildings only found here are the embassies. Our local building officials have finally been stirred by such flagrant violations of local codes as the Canadian Government's huge office building on Massachusetts Avenue—in the heart of a residential area—to demand that the foreigners' immunity from local legislation be scrapped.

• Still, the local scene yields in significance to those decisions by Congress and administrative officials that reach throughout the nation. When the interest rate on FHA mortgages is raised from 5 percent to 5½ percent, everyone is affected—whether it ever succeeds in luring mortgage dollars out of other parts of the money market. The continued failure of efforts to secure Federal aid for school building is of equal significance. When the Public Buildings program strangles itself, because it can compete for everything but money, it affects every city where Federal buildings are obsolescent or inadequate.

• These and far more issues must be considered if a balanced perspective of Washington is to be sketched. Both local and national questions were neatly packaged last month by J. S. Bragdon, the President's Special Assistant on Public Works, in an address to the American Municipal Association that left no doubt our booming national capital is a microcosm of all the nation's cities. Washington's growth parallels the nation's other major cities, whose public-works demands are staggering. The total dollar value of these needs now exceeds $200 billions. But the real shocker is that about 40 percent of the needed facilities represent items that have been deferred; 24 percent are needed because of obsolescence; and 36 percent to meet the needs of our growing population. Since we are building today at only 42.3 percent of the needed rate, "to catch up on these needed assets within the next ten years, our present rate of construction would have to be more than doubled." That is the dilemma in which highways, education, hospitals, water and sewer and other municipal facilities are bogged down. And if General Bragdon thinks that cities can and will raise their tax rates sufficiently to pay for these public works, whether they are part of a comprehensive local plan, he would do well to have another think! His advice to cities struggling with inadequate tax resources is like telling a hungry family whether to eat its bread or drink its water first.

• The National capital is just such a typical American city, struggling along with its reliance on the general property tax and a regressive system of local excise taxes, prisoner of some superior Governmental authority. This is the situation that is forcing the wealthiest nation in the world to lower and lower standards of public service, particularly as measured by physical facilities. Those who live in great cities, and especially in metropolitan areas, can resign themselves to increasing inadequacies in schools, health, and public works facilities. The President's highway program, inadequate as that is, acknowledges in principle that substantial Federal assistance is the only remedy short of a genuine fiscal reform. As for the City of Washington, its municipal miseries can find solace in the fact that they are at least widely shared.

Financial News

by William Hurd Hillyer



The New Year promises unheralded developments, moneywise and otherwise. A few, indeed, are already invading the horizon—such as that unexpected return phenomenon, the "spacious" multibedroom residence. Factors influencing this renaissance are chiefly financial and economic. Even the re-advent of large families is basically traceable to steadily mounting incomes.

New homes are averaging 1230 square feet, a 6% increase over the year-ago area, with a like percentage climb to $14,500 cost (not including land). This nationwide median figure is far below the $18,000 to $30,000 being paid for 4-bedroom homes with appurtenant baths and conveniences. Such a domicile is of the size demanded by a swelling horde of buyers. The mortgage men say it's actually easier to finance an expensive home than a cheaper one. This is because the higher priced residence has to carry a "conventional," old-fashioned, 5% or 5½% mortgage, whereas the junior-bracket houses employ FHA or VA funds at lower rates. The loans are therefore harder to dispose of. Government has recognized this condition by boosting its FHA rate to 5%. (Current talk of a VA rate rise from 4½% to 5% will face Congressional opposition.) At all events, say the fiscally wise, Government's discouraging policy toward big houses will not keep them from being 1957's outstanding "home product." It's a truism that the roomier dwelling is essentially the architect's affair.

Actually, the shortage in the supply of loanable funds (at National banks only) is around 913 millions, taking June to September 1956 as the most recently reported time-way. Loans of all kinds increased $1 billion net during the period while deposits of all kinds gained only $87 millions net—despite a $200-millions savings increase more than offset by Government and State deposit decreases of $800 millions. Real estate loans were up $300 millions. According to last reports Fanny May (Federal National Mortgage Association) will hereafter buy mortgages with Government guarantees, whether new or seasoned, thus throwing her full weight behind the lagging mortgage market. She's a good bargainer nevertheless, and is picking up the loans at around 98 cents on the dollar. Her chief, Pres. J. Stanley Baughman, sees tight home-mortgage money well into '57.

In addition to the larger house, a 1957 comeback will be staged by that sterling Morality character, Thrift. His eclipse in the '30s by such fustian stars as Spend, Tax, and Overspend continuing through the '40s and '50s, brought him into positive disrepute. The coming twelvemonth, however, should witness his full reinstatement as star performer behind the financial footlights. "A change of attitude toward saving" is noted by the Guaranty Trust Company of New York, adding that "Thrift has become respectable again." This means that capital accumulation will be resumed and mortgage money, life blood of building, will be in better supply.

• Construction cost of $94 millions is estimated by Chase Manhattan Bank, New York, for its new downtown skyscraper, not including $16 millions for the land and $11 millions for furnishings and "special facilities." Chairman McCloy notes, with wistful understatement, that costs of building have "risen considerably" since the project was initiated in '55 (see NEWS SURVEY, May 1956 P/A).

• As forecast by P/A, 1956 proved to be a "Santa Claus Year." It would tax this page's hardihood to repeat such a prediction for '57 in the face of international and inflation perils. However, a few facts as noted by the editor of the American Bankers Association's monthly publication lend color to optimism:
Personal income is at an all-time high (annual rate exceeding $332 billions according to latest official reports);
New construction tops all previous activities, with residential building's annual rate running slightly under a year ago and other construction touching new highs;
Unemployment is down by 200,000;
Savings are rising, though slowly;
Steel production is at full capacity, and "all basic statistical indicators, including gross national product, point upward." Since this ABA pronouncement, the American Iron & Steel Institute has trumpeted the first 11-million-ton month of steel production, making 1956 the industry's "second best year" despite the summer strike, and tagging "construction needs" as "laying the groundwork for the nation's growth at record and near-record levels."

• To the foregoing roster may be added those dependable indicators of business activity, bank-check transactions. These are chalking up a monthly record total in excess of $100 millions for 26 centers. Other favorable trend-pointers: Shipments of machine tools are larger than at any time in 2½ years, thus heralding industrial expansion for '57;
Life insurance sales are high, having broken all October records with $4.8 billions issued for prospering (mostly home-owning) policy-holders.

In the midst of these plus-signs comes as one welcome minus a marked slackening of business loans in the industrially developed Midwest. A $24-millions drop-off in November's final week is reported by leading banks in the Seventh Federal Reserve (Chicago) District. However, the consensus among 1000 bankers attending the First National Bank of Chicago's Correspondent Conference, as reflected by the speakers, was that 1957 will be at least as good as 1956 and probably better. Specifically, to quote a hundred-year-old New England banking and construction authority: "It looks from here as if real estate and building, while off from the figures of a year ago, will still be well above the average." This page is not disposed to dispute so heartening a forecast—but there is always the thin shadow of inflation.

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Precast reinforced columns, 32 ft. on centers, have steel plates welded to girder plate, creating a rigid frame. Hollow girders, precast in halves and assembled into 32-ft.-long members, were post-tensioned with three cables before erection. Three additional continuous cables were added after erection. Inside of girders was filled with grout after tensioning.

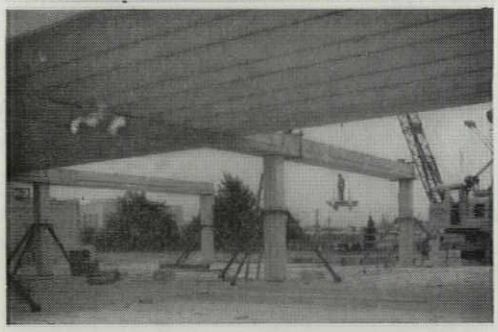
Each 6-ft.-wide double-T floor section, supported on girders 33 ft. 4 in. on centers, is stressed with sixteen wire strands, pretensioned and bonded. 'Incor' 24-Hour Cement was used throughout in precasting, for the twin advantage of profitable speed with highest quality.

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prologue

The Fourth Annual P/A Design Awards Program has resulted in the honoring of the work in progress illustrated in this issue. Our Jury—Marcel Breuer, Gordon Bunshaft, Emil H. Praeger, Huson Jackson, and Harry Weese—labored hard and long over the evaluation of approximately 800 entries. The architects of premiated projects will be feted at the annual Awards Dinner in New Orleans this month, and a new extension of the Program—a Design Awards Seminar—will follow at Tulane University.

The Jury this year found merit in projects which fall roughly into two categories differentiated by basic design attitudes: pure, simple, almost mathematical formalism; and an increasingly important plasticity, with a strong sensuous appeal. What is happening in architecture when this Jury commends designs as diverse as Schweikher's Fine Arts Center for the University of Buffalo, and Yamasaki's American Concrete Institute Building; Hausner & Macsai's Apartment Building, and Ruhtenberg's Opera House? Is it confusion, is it a "crisis" in contemporary design as some have said, or is it a reasonable divergence of two maturing philosophies? P/A's Editors are inclined to think it is the latter and offer a hypothesis which *may* help understand what is going on.

We refer once more to a favorite theme: the relationship of the architect to the community. In this instance we mean the very broad community; the community of man for whom the architect, in a generic sense, designs. The more obvious aspects of community relationship have been, and will continue to be documented—what clubs to join, what civic associations to work with, what public relations agency to employ. But to the *creative* architect-designer the ages-old problem of the relationship of the person with an urge to self-expression to the community of solid citizens, what we call "lay" people, people interested primarily in commerce and industry, people content to accept the events of day-to-day life without an emotional-expressive reaction to them, is as important and as difficult to establish as it is for the creative painter, sculptor, musician, writer.

Is this factor an important one in the production of architecture and "trends" in design? We think it is. In architecture it is particularly tense, because the design of buildings is not an abstract art which can be practiced by someone who runs away to the

preview for february

PROGRESSIVE ARCHITECTURE

SCHOOLS

According to the P/A Architectural Business Forecast for 1957, buildings for education account for more business in the average firm than any other type of building. To spotlight significant school design—elementary, high, college, and university—the feature section of February P/A has been expanded considerably and the larger part of the section will be printed in two-color offset (an innovation which proved most popular with P/A readers in 1956). Included are:

Frederic Burk School, San Francisco, Calif.
Architects: John Lyon Reid & Partners

Bantam School, Bantam, Conn.
Architects: Marcel Breuer and O'Connor & Kilham

Marin Street & West Park Street Schools, Napa, Calif.
Architects: Corlett & Spackman

Edward Mandel School, Queens, N. Y.
Architect: William F. R. Ballard

Miami Hills School, Madeira, Ohio
Architect: Charles Burchard, A. M. Kinney, Inc.

Lincoln-Sudbury Regional High School, Sudbury, Mass.
Architects: Anderson, Beckwith & Haible

Vocational School, Rio de Janeiro, Brazil
Architects: M. M. M. Roberto

Capuchino High School, San Bruno, Calif.
Architect: John Carl Warnecke

School for Society of Arts & Crafts, Detroit, Mich.
Architects: Yamasaki, Leinweber & Associates

Theological School and Chapel, Drake University, Iowa
Architects: Eero Saarinen & Associates

In February P/A are three technical articles of interest to the world's largest architectural circulation.

High-Temperature Hot-Water Heating Design
by Tyler G. Hicks of *Power* magazine

Water Treatment for Air-Conditioning Systems
by W. J. Ryan of Water Service Laboratories, Inc.

1957 Built-In Kitchen Equipment
by P/A Editorial Staff

Interior Design Data for February is devoted to *Galleries* in New York and Venezuela.

A Professor of Architecture from India recently wrote that P/A "is the only monthly publication in the architectural world which gives sufficient information on every aspect of [the] profession and serves the profession in the true sense." Issues such as the February School P/A are the reason so many professionals think of the magazine this way. They are also the reason why

PROGRESSIVE ARCHITECTURE

means

ARCHITECTURAL PROGRESS

South Seas to paint, or isolates himself to develop a system of philosophy, or in any way turns his back on the community of men. A Sullivan must have clients, even to the day he drinks himself to death. A Wright must build buildings, even if contact with lesser people drives him to bitterness and sensationalism. A Corbusier can spend just so much of his life writing about architecture, and then he must produce something which the community can see and like or dislike. A Mies cannot live just on the experience of an exhibition pavilion and the adulation of students; he must find clients who will let him build, and then subject himself to the comments of the man in the streets of Chicago and New York.

There is another reason why this problem is an acute one in the practice of architecture today: the fact that we are just now emerging into a rapport with the community, after a rather long period of isolation and introspection. This is accepted history now, surely: the fact that the beginnings of the modern movement in architecture were largely (not entirely, of course) intellectual and doctrinaire rather than pragmatic, and were obviously *far* ahead of the understanding of the general public —the total community. The result was inevitably a sense of isolation, and an understandable frustration on the part of the creative "modern" architect.

In most instances, this has been cured by time. The feeling that "the community doesn't understand me, doesn't want my work" has left most of our creative designers; the community obviously wants more of their work than they can produce. The means of adjustment are interesting to explore, and could result in a whole new method of classification of personalities in design: bitterness, hysteria, desire to please, the urge to shock, the romantic withdrawal, the brutal overriding of community wishes, the attempt to interpret and express community characteristics. There are many ways for the creative person to react to community relationships.

Attempting to translate these generalizations into an appraisal of what is happening in architecture in the United States—particularly as illustrated by these Design Awards projects—how might one explain the continuing austerity and simplicity on the part of many talented people; and what might be called a sensuous or emotional approach on the part of many other capable designers? Could these two tendencies, as products of relationship with the community, be defined in better terms than the usual abstracts of purity, honesty, technological expression, translation of function, on the one hand; and organic expression, warmth, ornament, plasticity, on the other?

Could the school of austerity, for example—ever more refined, articulated, formalized — be considered a continuation of the withdrawn, no-community-relationship expression of the early, frustrating days of modernism in architecture in our time? It is *acceptable*, now, to the community. So many translations have been made, on both high and low levels, that the "International Style" is now quite familiar to the man in the street. He isn't warmly enthusiastic about it, but he accepts it. But, no matter how it is refined or watered down, is it basically, in inception at least, what T. E. Hulme called Byzantine art: " . . . disgust with the trivial and accidental characteristics of living shapes . . . searching after an austerity, a *perfection* and rigidity that vital things can never have . . . "? Or what Gyorgy Kepes has called "the frustration and expressive kind of protest against the disordered world, in the work of the last 100 years of art"?

If we consider it this way, that does not deny its beauty; it is not a condemnation, but a possible explanation.

On the other hand, the various attempts at a new approach, not withdrawn, *vital* rather than rigid, might be explained as a desire to *express and interpret*, rather than *express by protest* and withdraw from the community. This does not imply a giving up of the creative person's special position—of sensitivity, of understanding beyond standard visual values, of seeing objectively while large parts of the community live in subjective blindness. It should mean the reverse: a rising to a level he deserves, where he can create, and express. Whether great architecture (or any art) "expresses its society" is problematical. But great art (including architecture) has certainly always been some creative person's interpretation and expression of the community he lived in. Perhaps this is what is happening in architecture in the United States today.

What is it that our architects are trying to express? Speculation on that subject is not for a *Prologue*, but for a *Postscript* (see page 216).

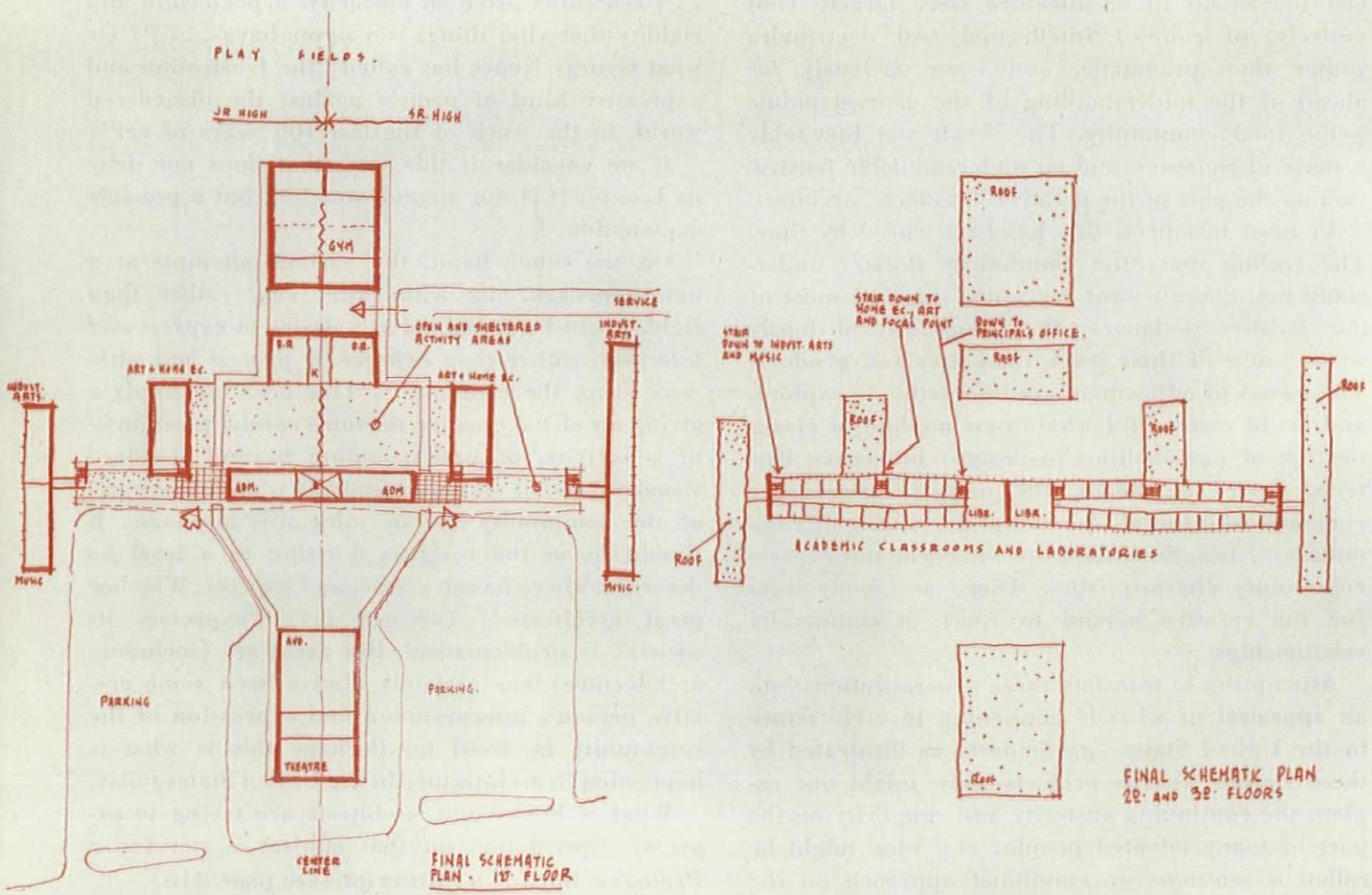
first design award

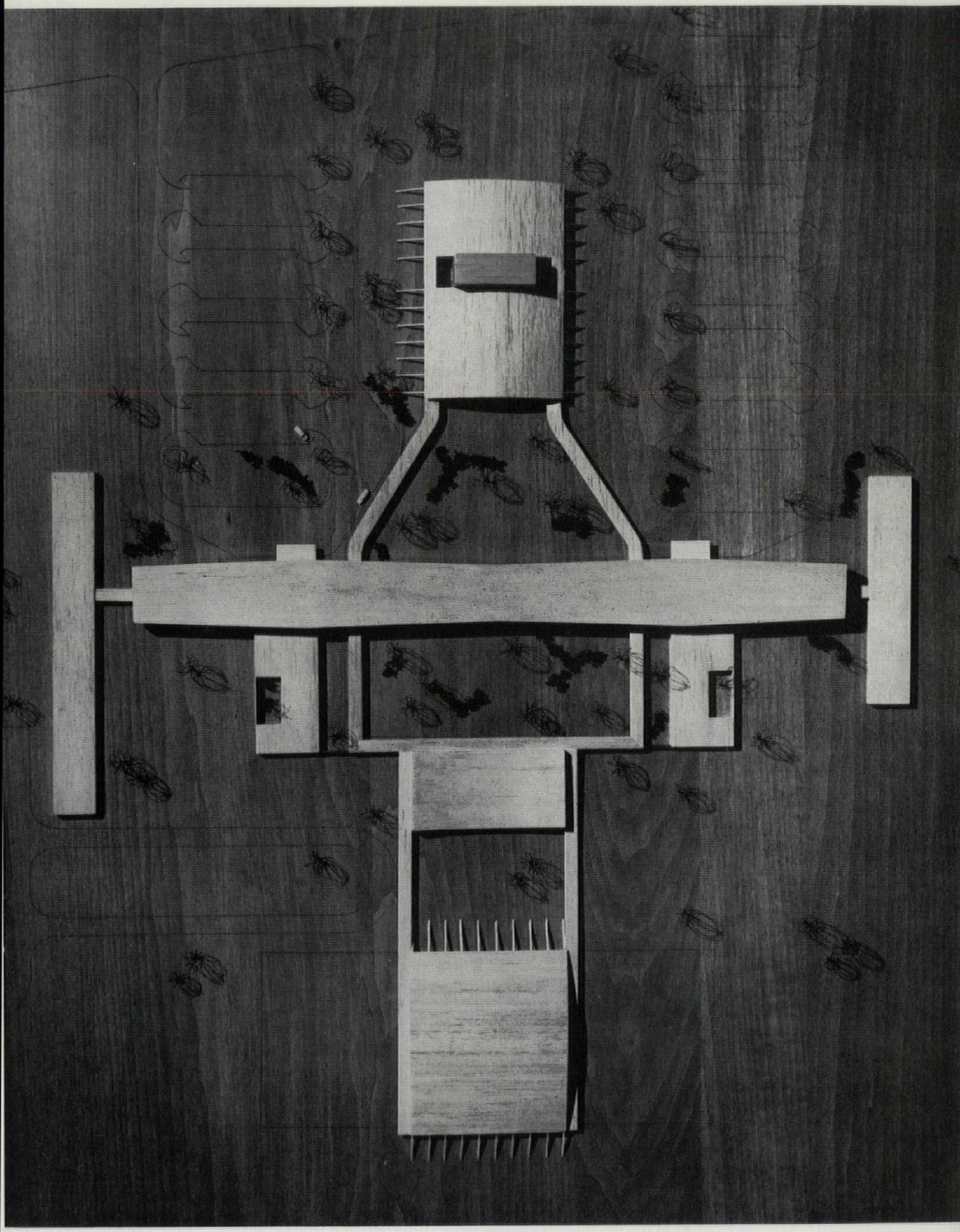
High School, New Orleans, Louisiana

Curtis & Davis, Architects-Engineers

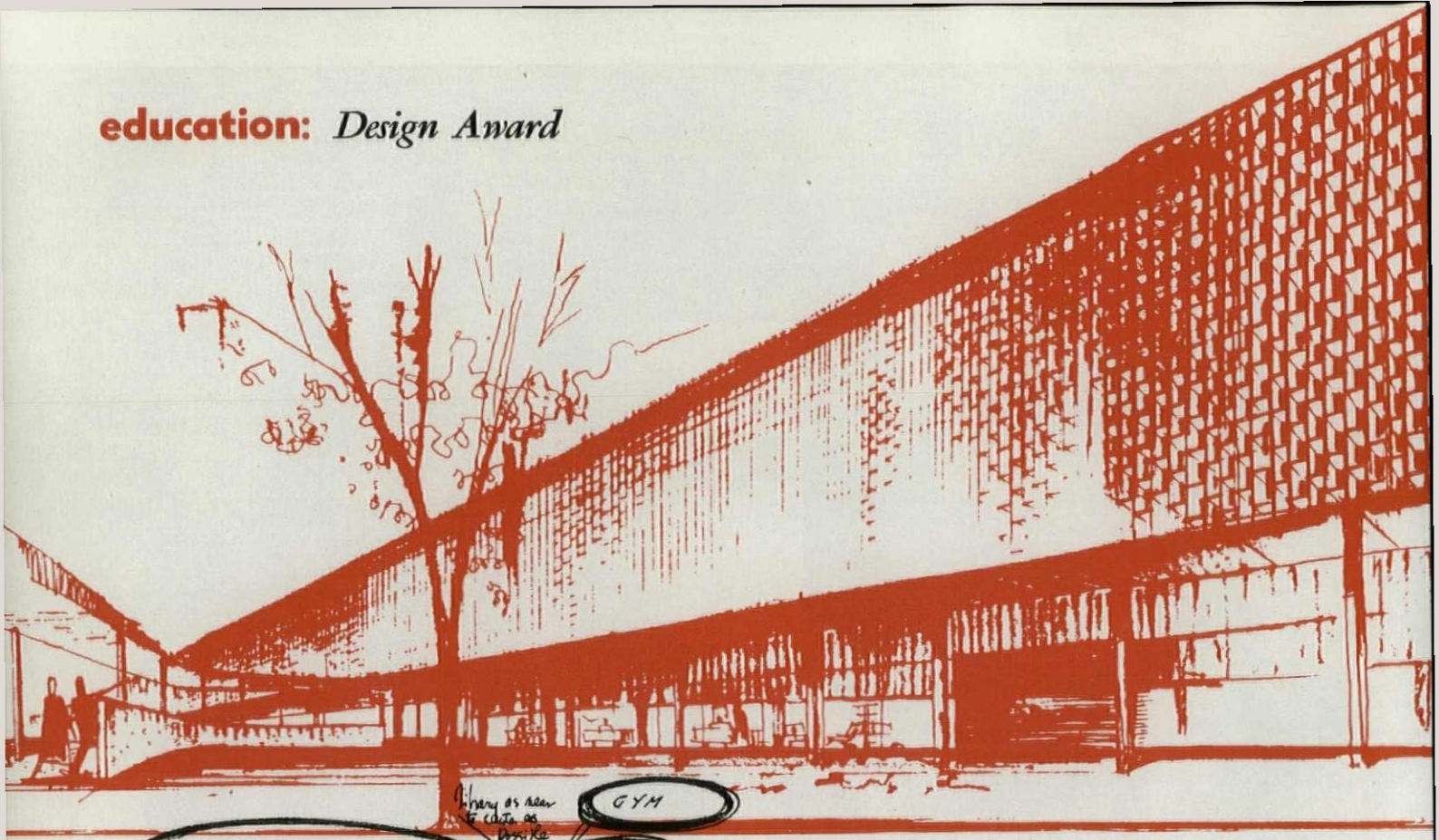
In a period when the need for well designed high schools is extremely pressing and when architects are increasingly confronted with this intricate design problem, it is reassuring that this junior-senior high school has won top honors in the Design Awards Program of 1957. Granted that the design of the high school plant is complex—there is no reason why time and, above all, building experience should not bring the design level of the high school to the general architectural competence displayed by today's elementary school. Curtis & Davis have done excellent spade work in this field, beginning with their preliminary report addressed to the school board. Though directed to the architectural layman this report is of equal interest to the professional, and its preparation must have had considerable value in clarifying the architects' own thoughts. The report is in the form of an illustrated brochure, stating the basic requirements and presenting the architects' design development of the plan—their thoughts and decisions. In logical sequence, the basic structural units are analyzed in relation to quiet and noisy uses, and properly placed with respect to site conditions and student circulation. Classroom arrangements, for instance, were debated and weighed with considerable care. For economy, the double-loaded corridor was chosen. A system of partial partitions will permit the flow of air at corridor floor and ceiling levels. Natural light in this two-story scheme will be supplemented with artificial light, necessary in any case. In many phases of the design, according to the report, the architects have drawn liberally on earlier experience. In the selection of a sun-and-glare screening device, for example, a lightweight masonry screen which proved satisfactory at the Sako Clinic (*November 1955 P/A*) was selected in preference to vertical louvers, wide overhangs, heat-absorbing glare-proof glass, and even solid walls—all of these tried in earlier buildings. However, it was not only the logical presentation of a design and its plan organization which made the Jury vote unanimously in favor of this school, but also the blending of the elements of the structure into a masterful composition.

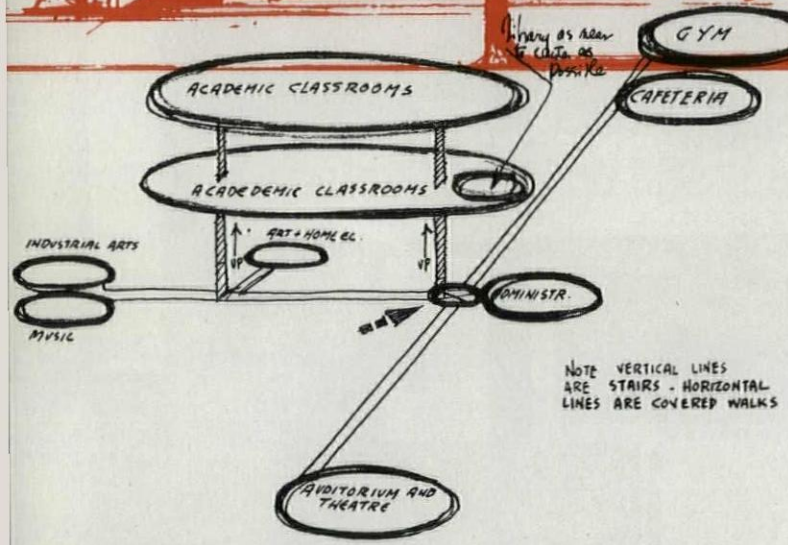
"It is architecture," said one of the Jurors—and no greater compliment could have been paid.

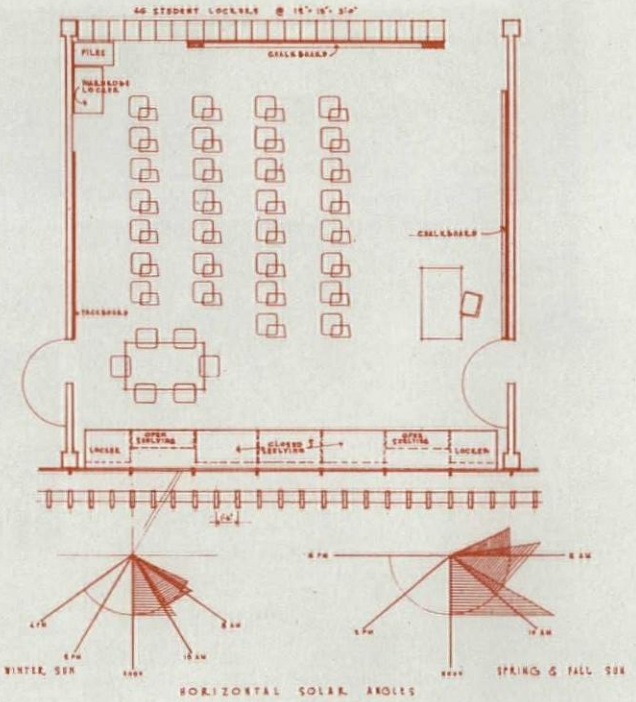




education: *Design Award*

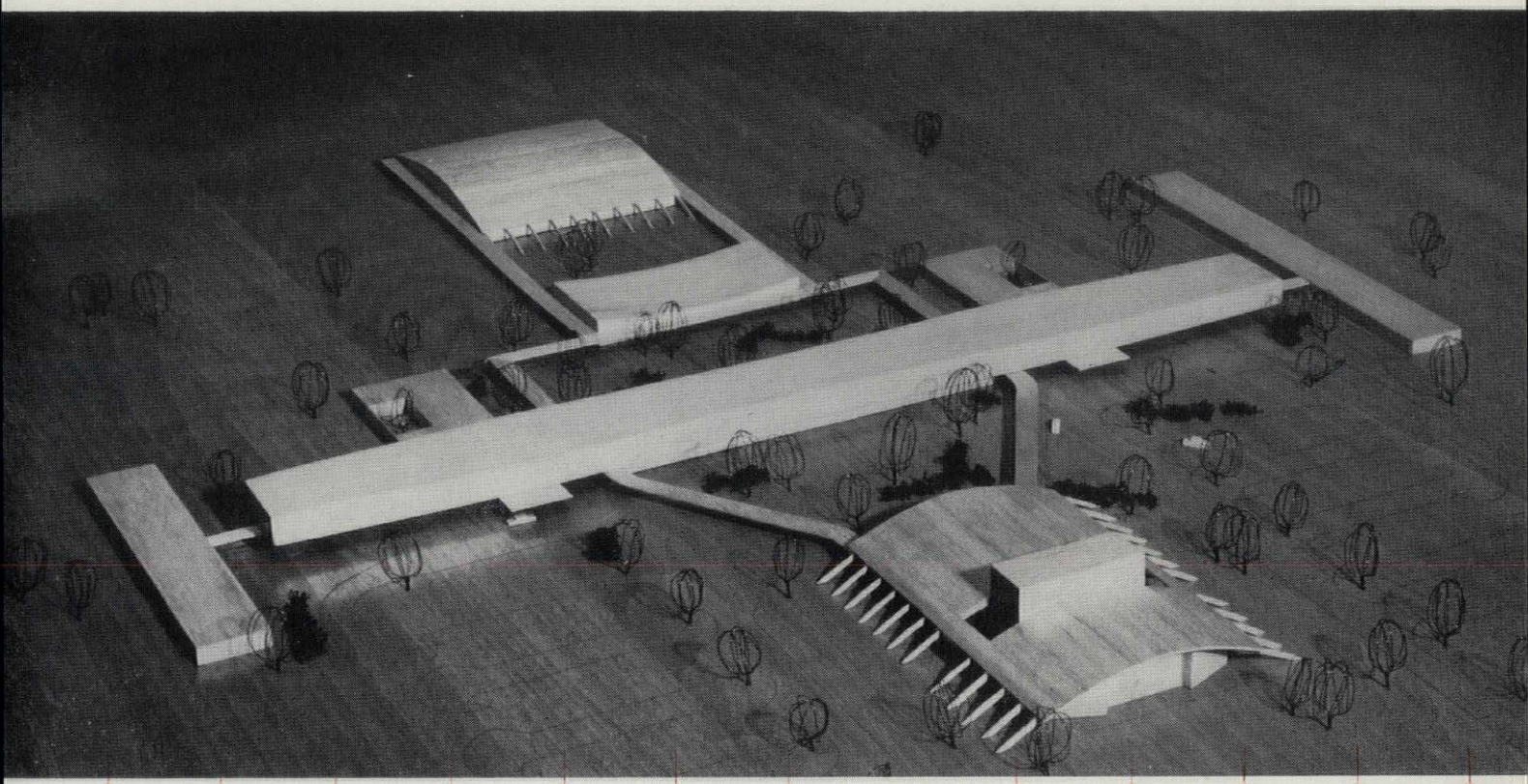


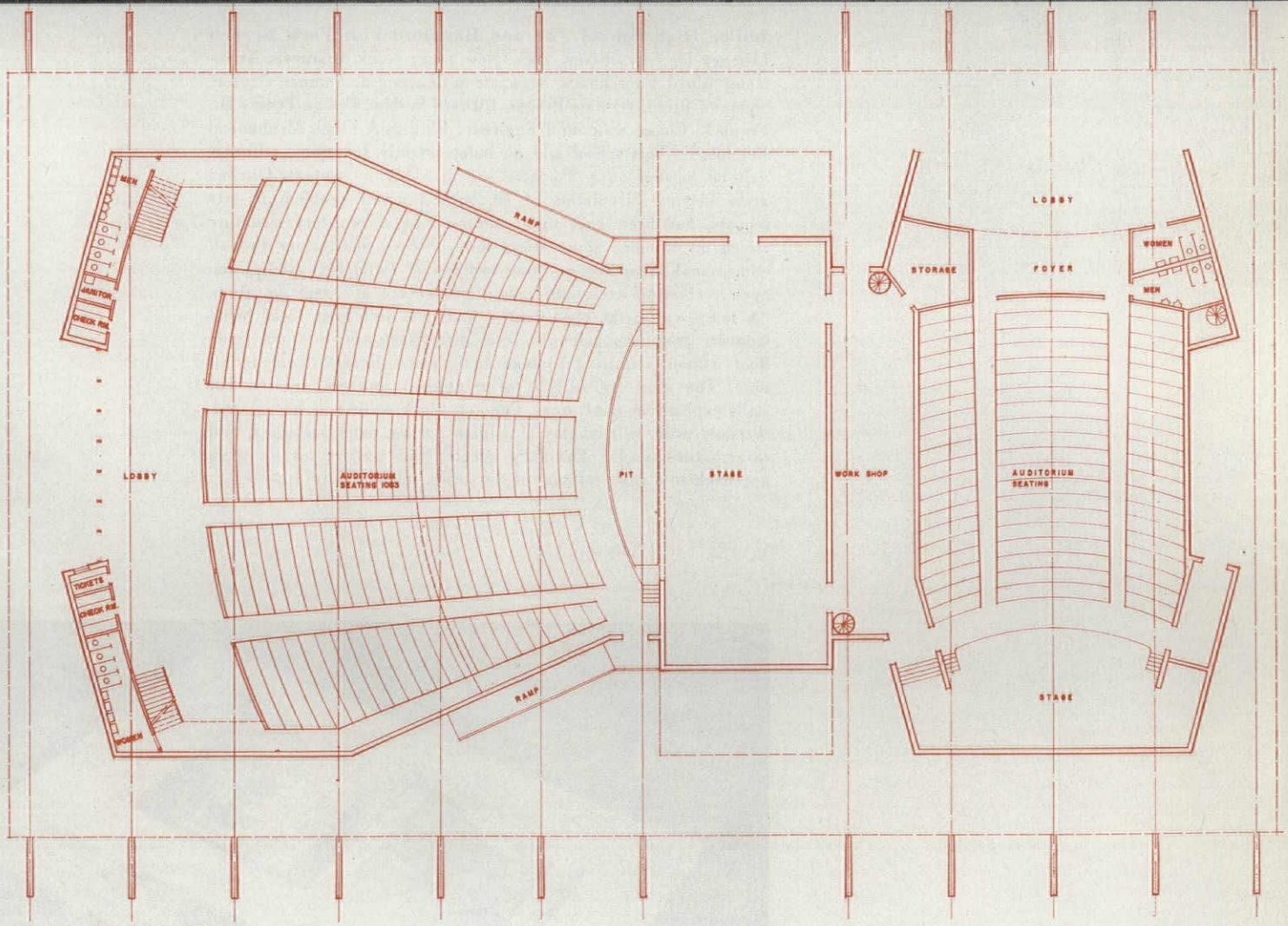




TYPICAL CLASSROOM

George Washington Carver Junior-Senior High School for Orleans Parish School Board, New Orleans, Louisiana: Curtis & Davis, Architects-Engineers; Kamlah Johnson, Project Supervisor; Aubrey G. Code, W. B. Settoon, Walter E. Blessey, Structural Engineers; Cary B. Gamble & Associates, Mechanical-Engineers. Although the site will eventually be bounded by roads on all sides, the only existing access road is along the south boundary of the property. Utilities will be brought in from the south and most of the expected student population will arrive from this direction. Thus the school will be placed on the southerly portion of the site; the northern half is to be devoted to playfields. The building roughly resembles a cross—its dominant linear element represented by the two-story classroom wing terminated east and west by music and industrial arts buildings for juniors and seniors. The more formidable elements—auditorium, cafeteria, and gymnasium—will be placed perpendicular to the academic wing. Structurally, pile foundations will be required throughout. Gymnasium and auditorium are to be constructed of precast and prestressed concrete. All other buildings will use structural steel, composition roofing, brick and aluminum window walls, precast concrete sun screens. Interior partitions will be of concrete block and facing tile; floors, asphalt tile and quarry tile; ceilings, gypsum and acoustical plaster.



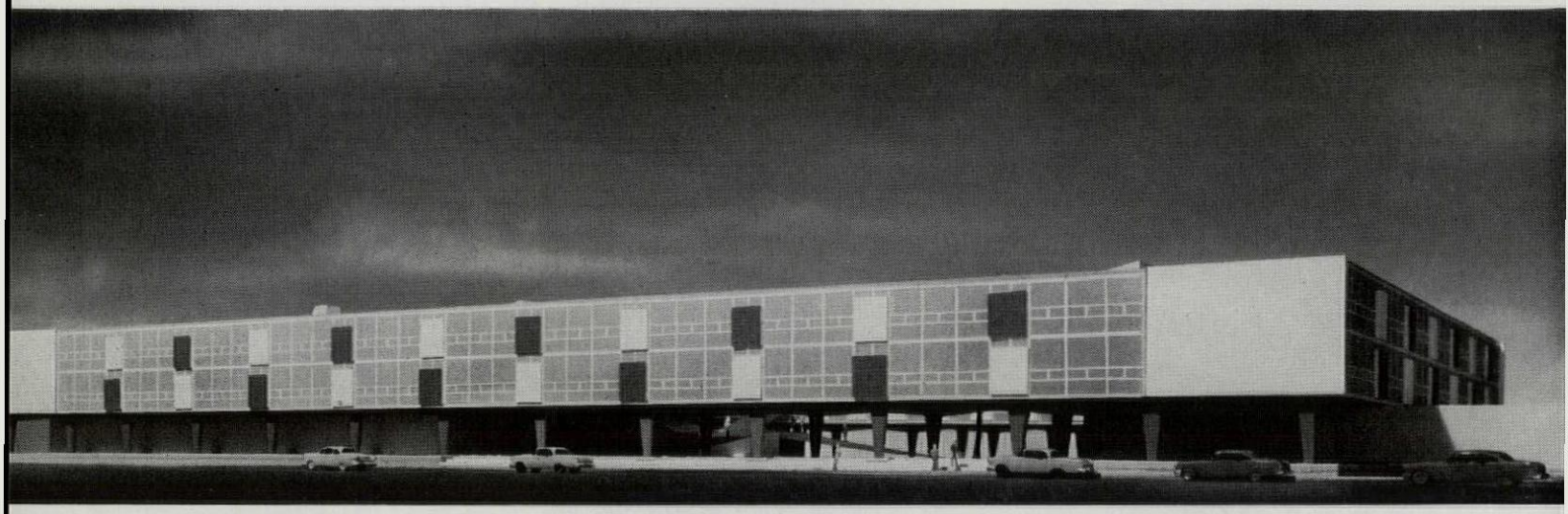


FIRST FLOOR PLAN

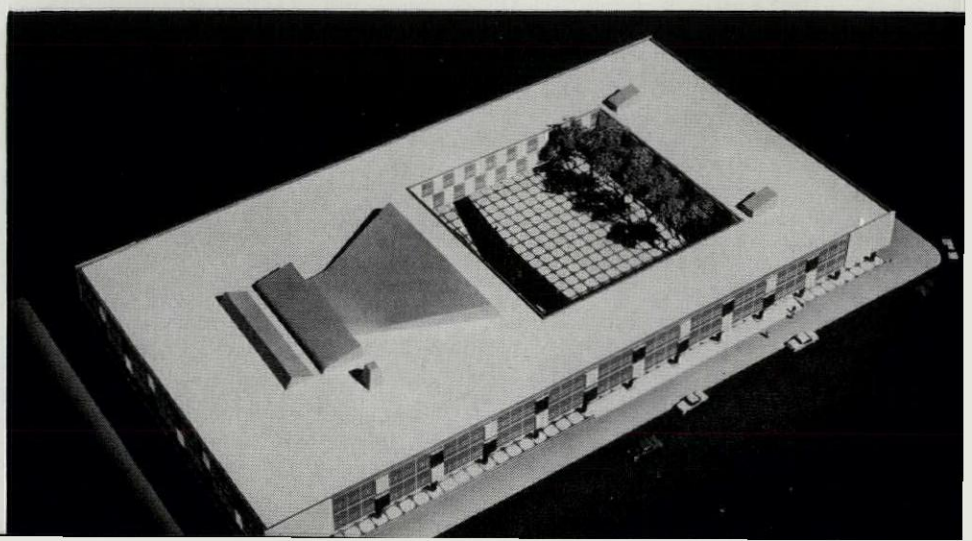
SCALE 0 10 20 30 40

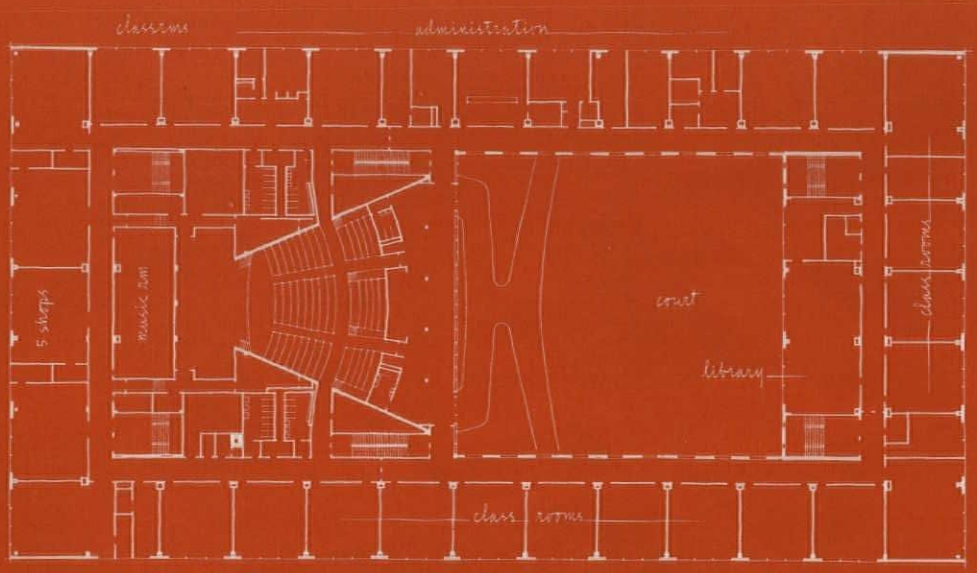
AUDITORIUM

education: *Award Citation*

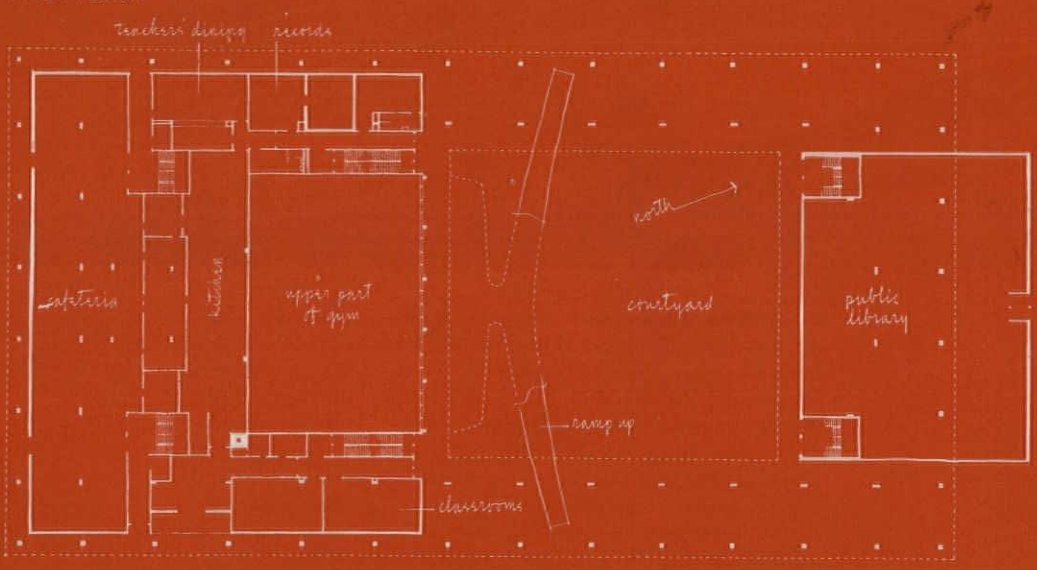


Junior High School #22 and Hamilton Fish Park Branch Library for City of New York, New York: Kelly & Gruzen, Architects; Lloyd Fleischman, Associate-in-Charge; B. Sumner Gruzen, Sigmund Blum, William Breger, Richard Snibbe, Design-Team; Dr. Frank L. Ehasz, Structural Engineer; Phillips & Elbal, Mechanical Engineers. This school and an independently functioning library will be located on a 2½ acre site in a highly congested urban area. Vertical circulation of students, a major problem in city schools, has been kept to a minimum by a two-story structure raised on columns above street level. School auditorium and all educational areas are on these two levels. Cafeteria, gymnasium, open recreation area, and public library are at street elevation. "A ramp within the open court," write the architects, "will bring students from the sidewalk level directly to the first academic floor without requiring passage through any portion of the building." The structure will be of reinforced concrete, leaving flat slabs exposed in most areas. Concrete-block walls will be painted. Window walls will employ aluminum frames, extensive glass, and ceramic-tile panels. The Jury selected this project for its fresh approach to a plan solution of the urban school.



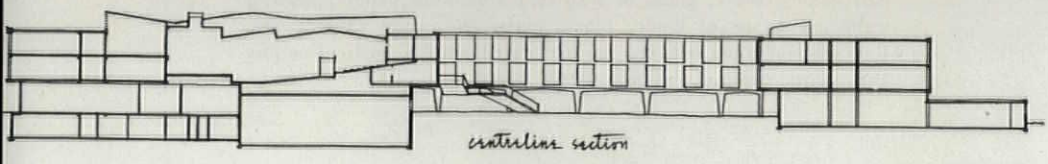


FIRST FLOOR



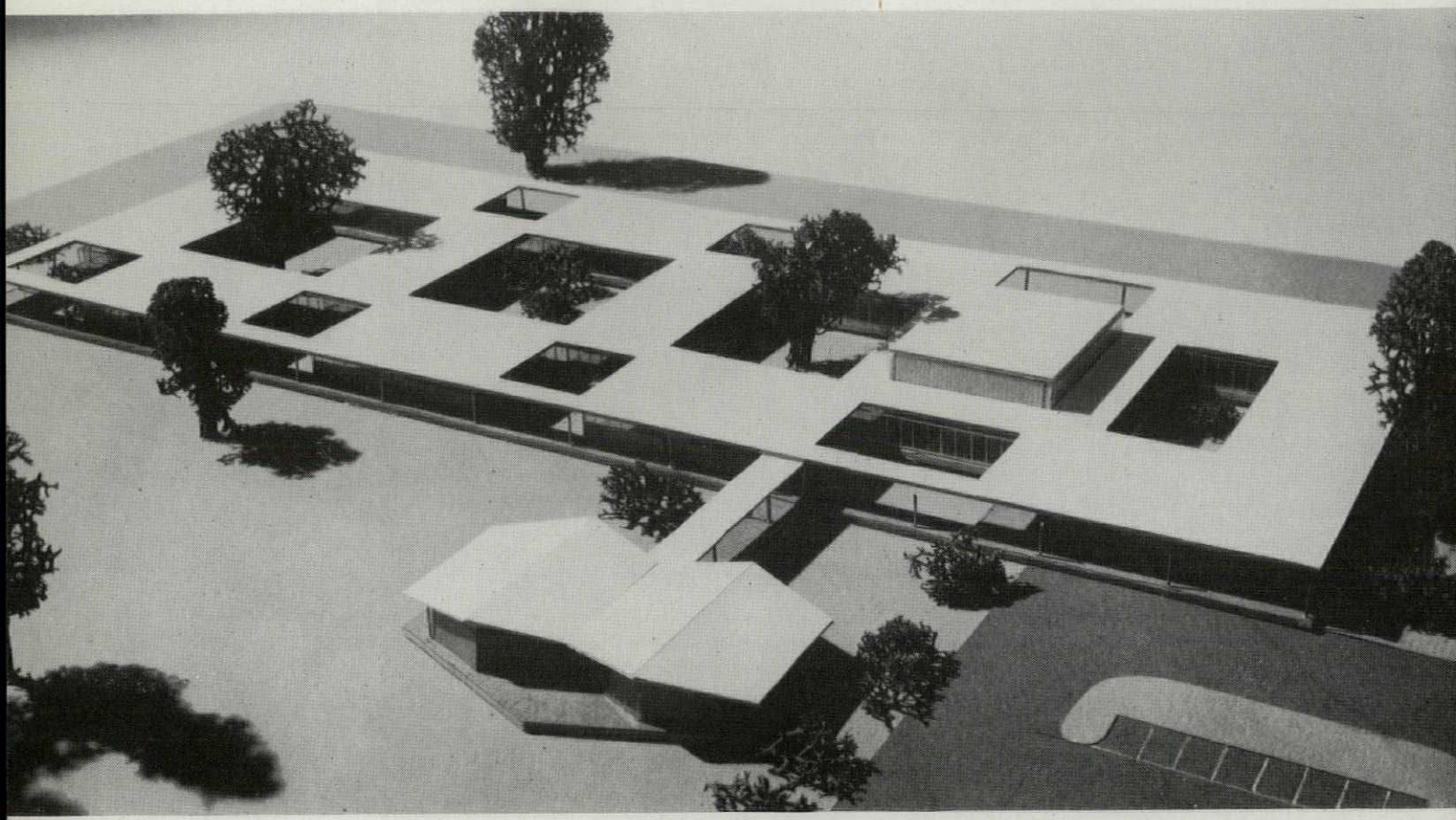
MAIN FLOOR ground level

0 50 100 feet

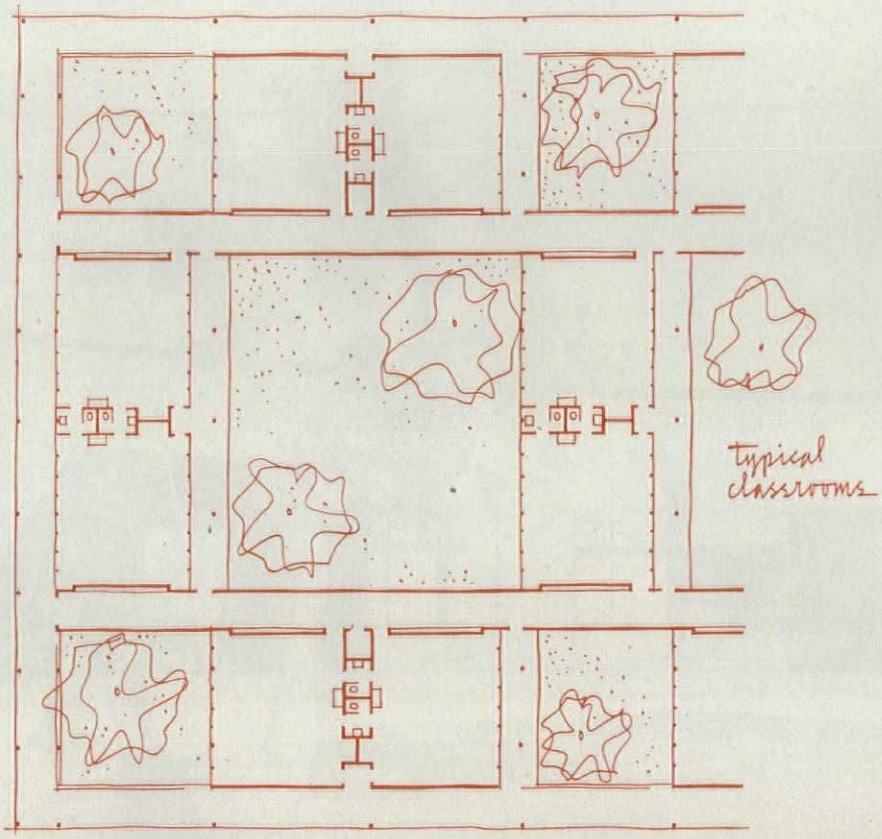


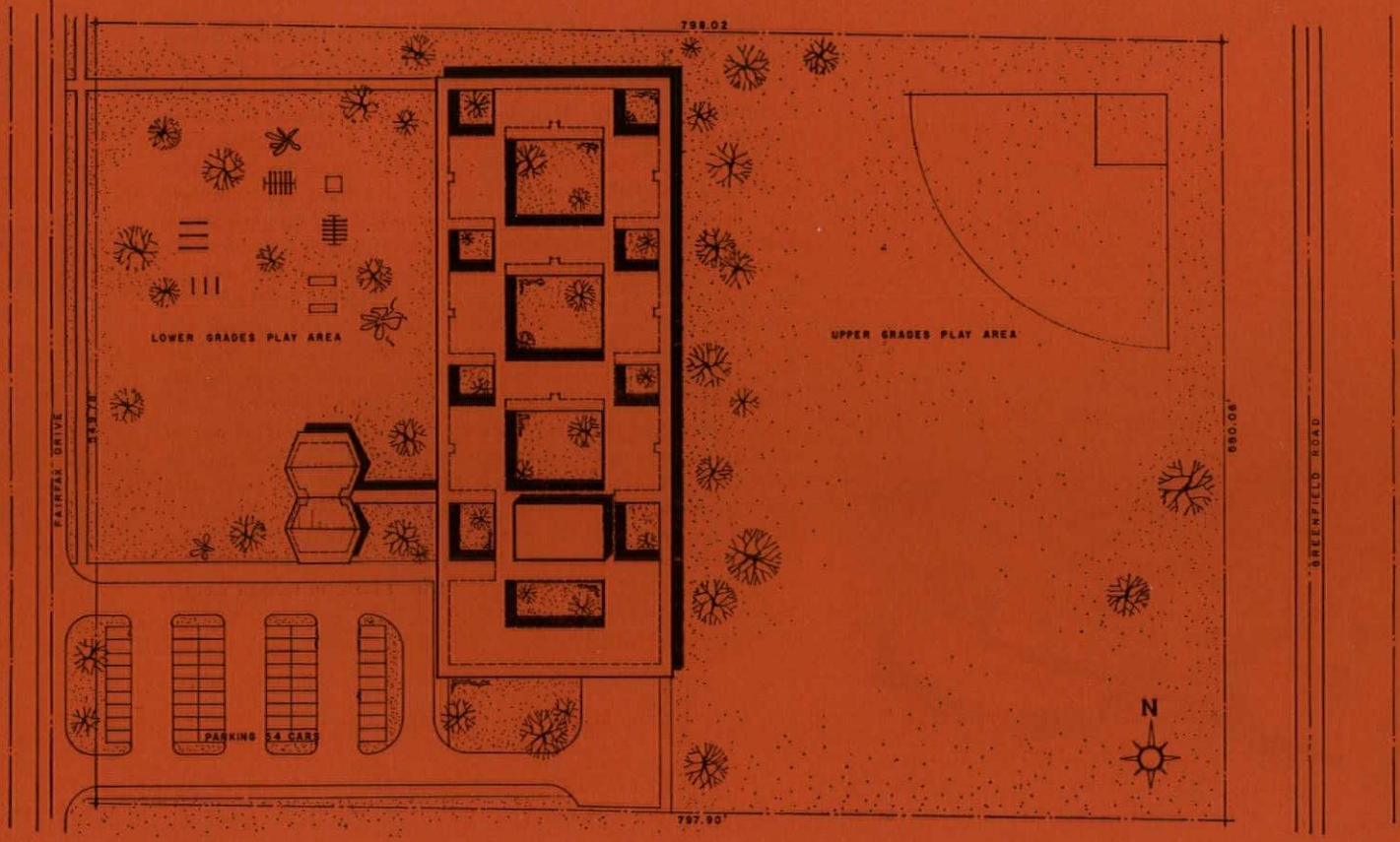
crosswise section

education: *Design Award*

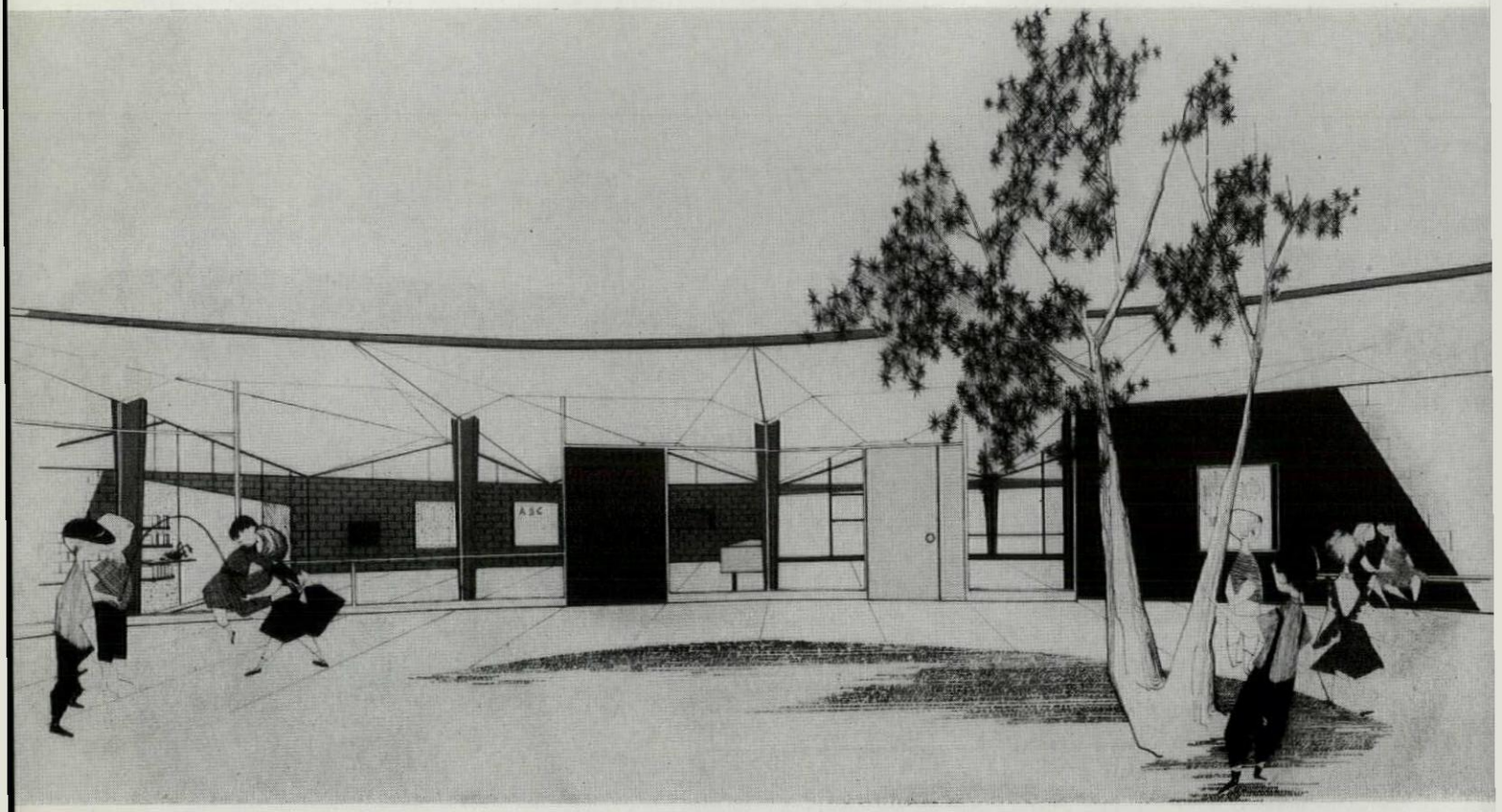


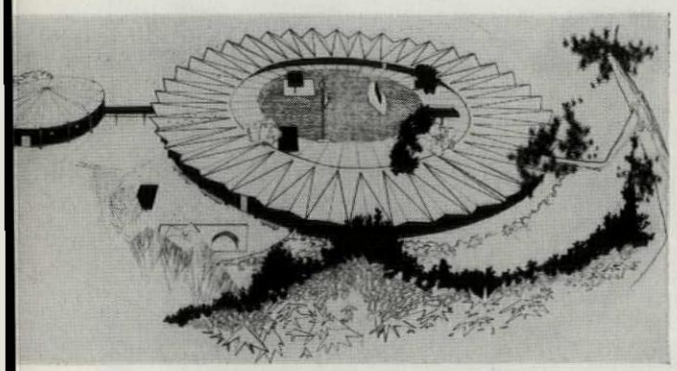
Greenfield Elementary School for School District, City of Birmingham, Michigan: Eberle M. Smith Associates, Inc., Architects-Engineers; Mark Jaroszewicz, Tobi Gersbach, Associate Architects; C. Wendell Smith, Landscape Architect; Lyndon Welch, Associate Structural Engineer; Arthur T. Bersey, Associate Mechanical Engineer. Separation of play areas for upper and lower grades, and ease of car access to kindergartens were the client's special requirements. Classrooms for the upper three grades have been arranged to the east, the lower grades and kindergartens to the west of the school's long north-south axis. A covered passage, which will also serve for car unloading, connects kindergartens to the school proper. Since the site offers no particular interest, classrooms will open onto attractive, semi-enclosed garden courts. Principal glass areas in classrooms will face north or south—southern exposure to be sheltered by an 8′-0″ roof overhang. Less desirable east and west exposures will have high windows facing toward covered passages. The structural frame will be of steel, using a standard 16′x32′ bay. Exterior walls will employ brick, glass, or insulated aluminum panels; interior walls are to be of cinder block, glass, and wood cabinetwork. Radiant-heat pipes between the perforated-metal acoustical ceiling and poured-gypsum roof will supply heat.


typical
classrooms


798.02
LOWER GRADES PLAY AREA
UPPER GRADES PLAY AREA
PARKING 54 CARS
797.90
N

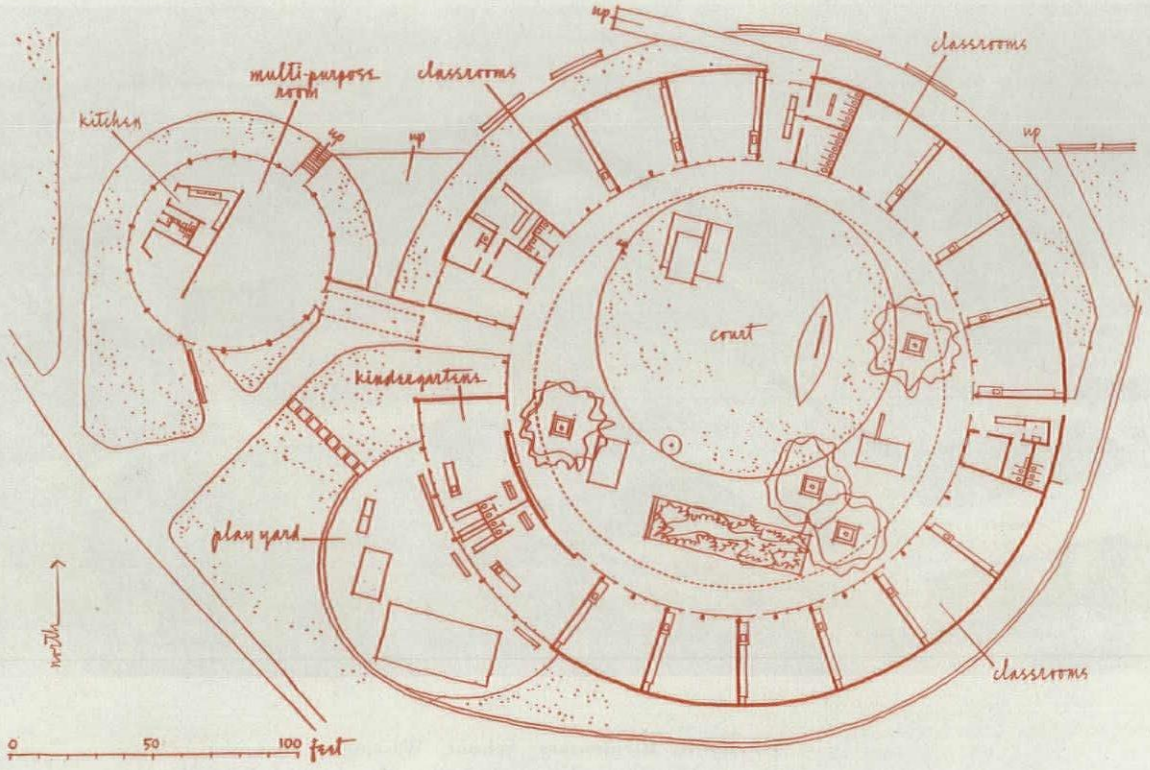
education: *Award Citation*

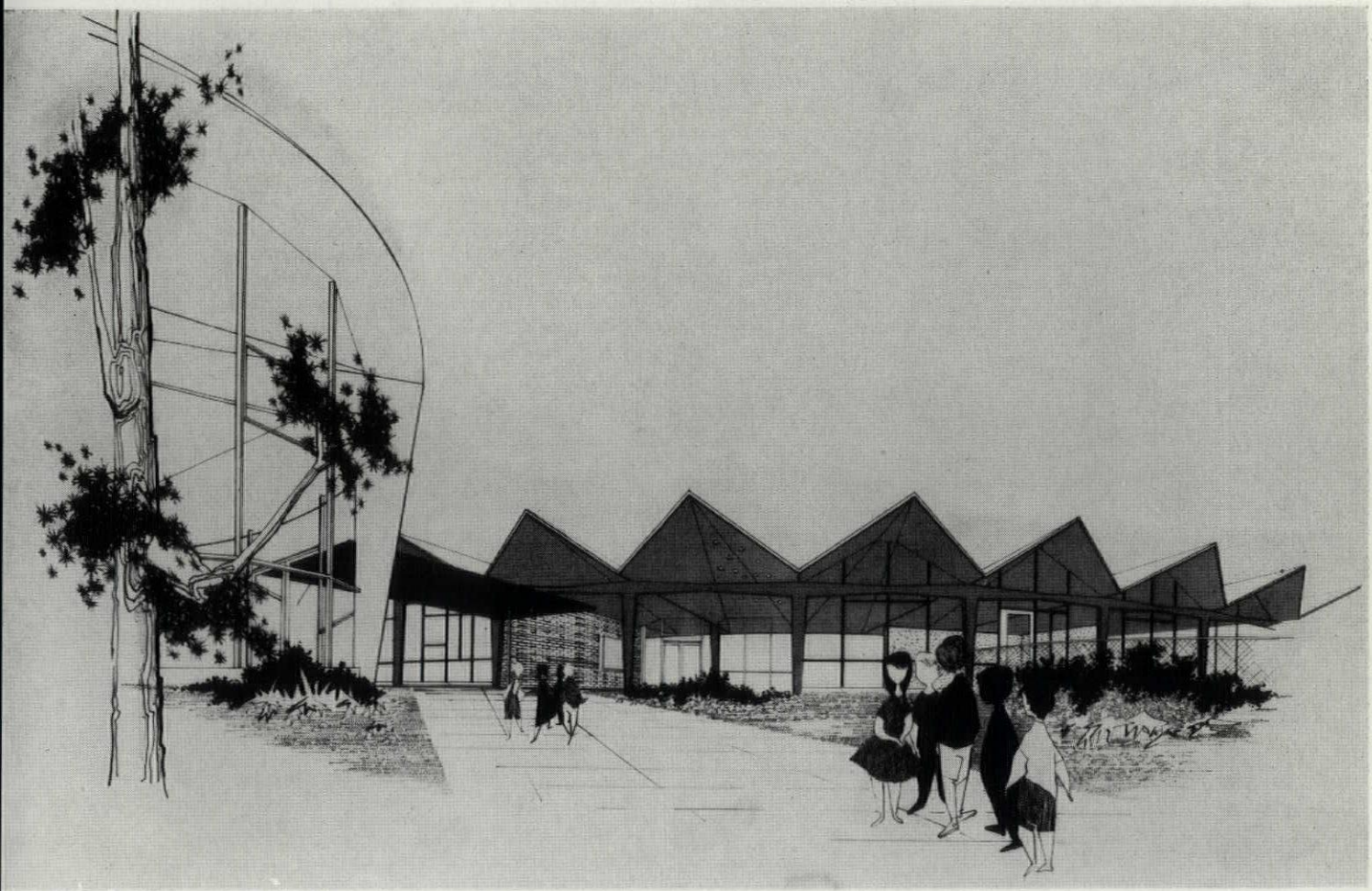




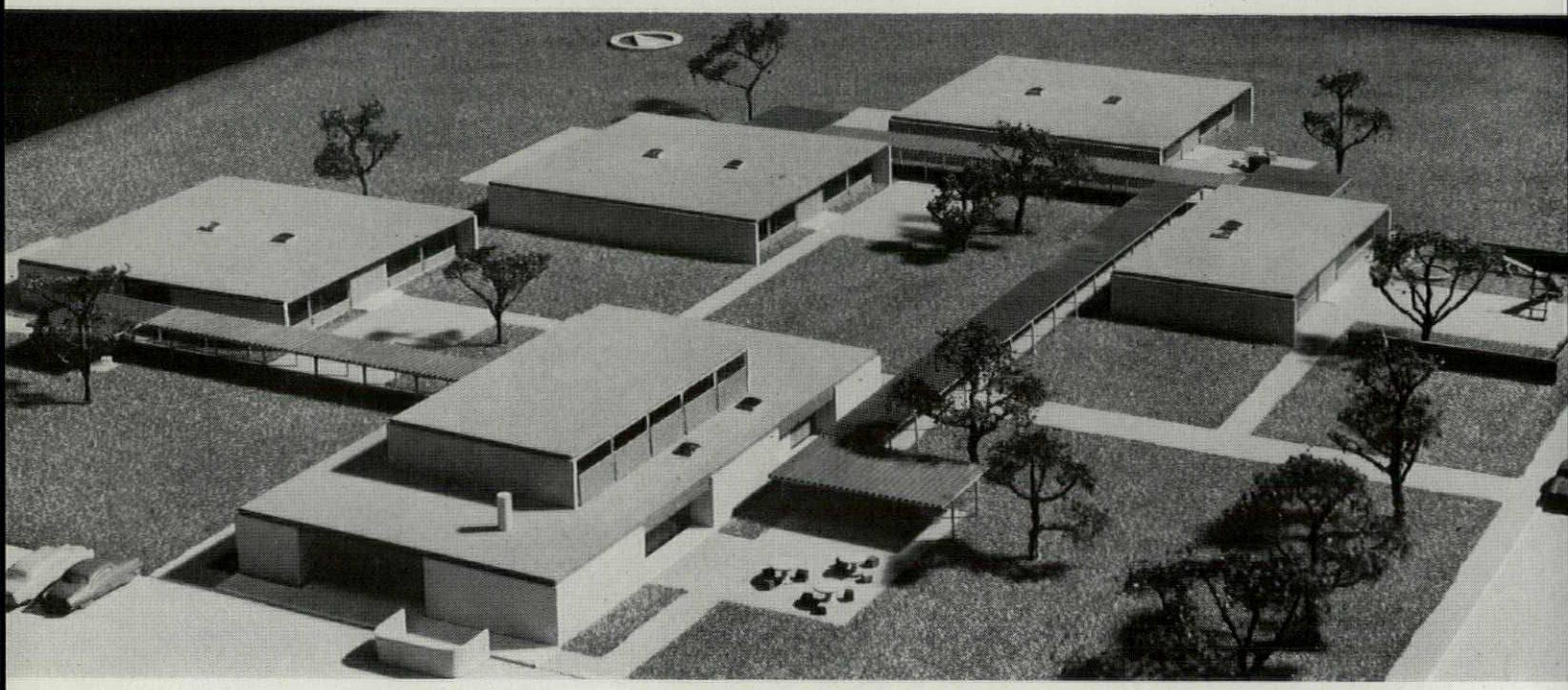
Vista Mar Elementary School for Jefferson Elementary School District (H. Z. Weibel, District Superintendent), Daly City, California: Mario J. Ciampi, Architect; Allyn C. Martin, Associate Architect; Lawrence Halprin, Landscape Architect; Isadore Thompson, Structural Engineer; Buonaccorsi & Murray, Mechanical Engineers. "The site," writes architect, "is to be graded so that the actual building will be placed in a bowl approximately 60 ft below the upper street level. The view down into the school was considered most important. The central garden can be easily maintained and controlled and will provide a pleasant outlook for all classrooms and a sheltered area for outdoor activities." The multiuse room has been designed for drama, music, games, and dining for the children, as well as for adult community activities. "Since this school building was to be a cultural center for the community," continues the architect, "a circular concept of forms was considered to be a relief against the monotonous repetition of rectangular buildings in the surrounding area." The roof will be constructed of precast thin-shell vaults, erected in place over masonry walls and precast-concrete rigid frames. The Jury differed on the use of the circle for the multipurpose room, but commended the architect for his ingenious total solution.

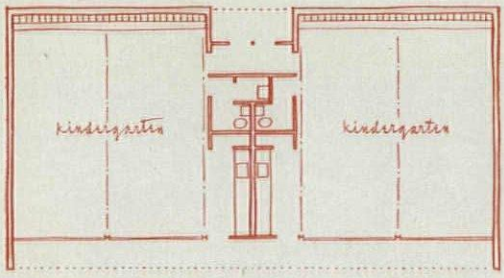
(*See* INTERIOR DESIGN DATA.)

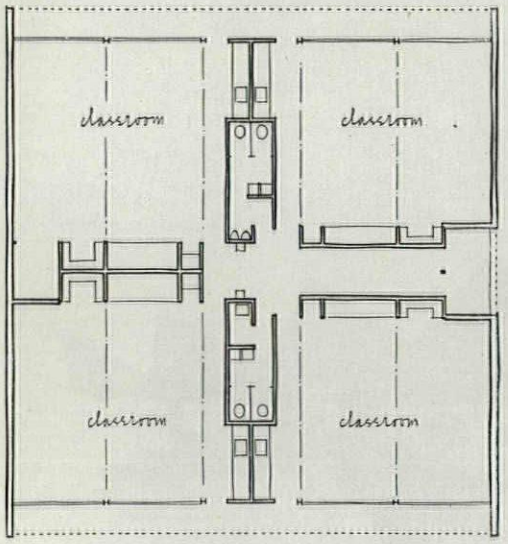

up
classrooms
multi-purpose room
classrooms
kitchen
up
up
court
kindergartens
play yard
classrooms
north
0
50
100 feet



education: *Award Citation*

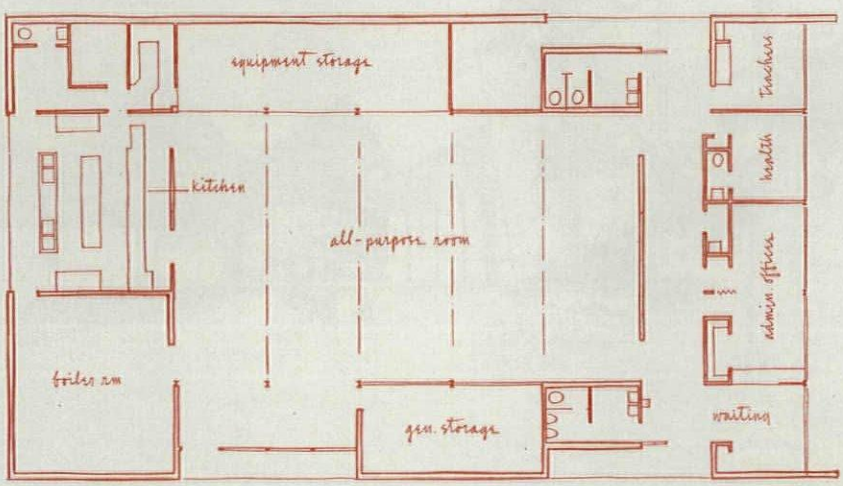


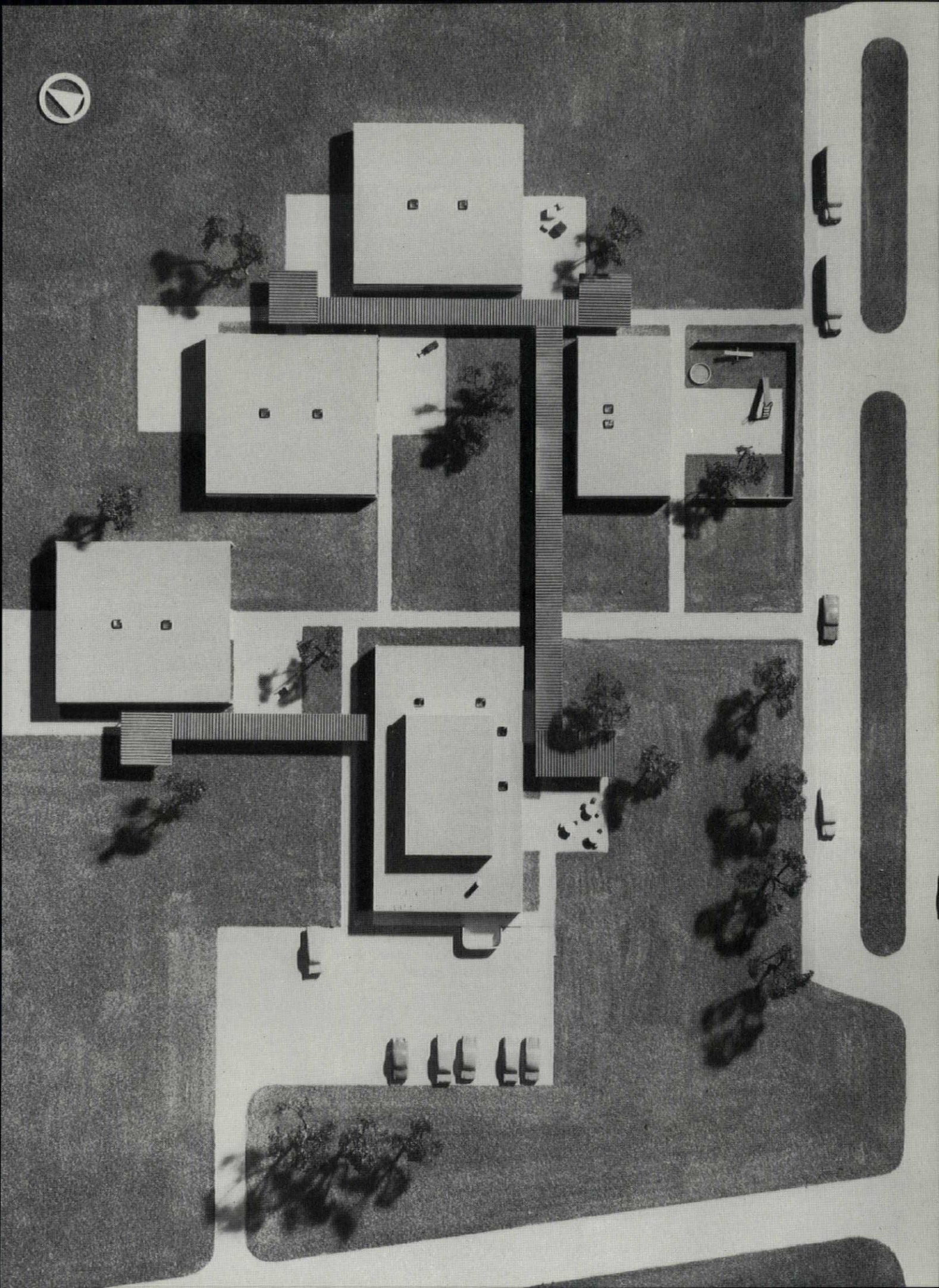




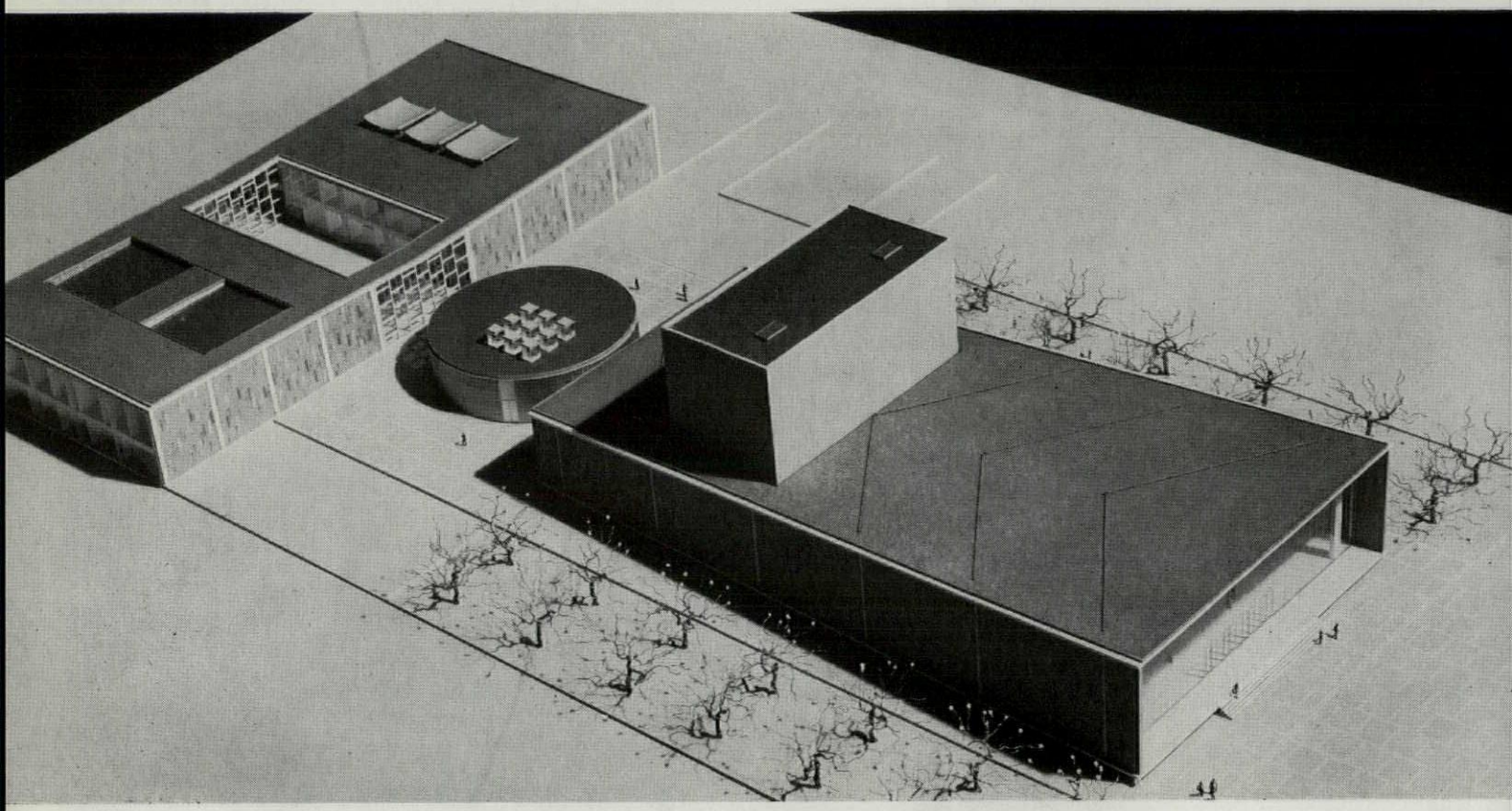
Hurffville Elementary School, Washington Township, New Jersey: Vincent G. Kling, Architect; Joe Jordan, Job-Captain; Frederick G. Roth, Design Co-ordinator; Allabach & Rennis, Structural Engineers; Pennell & Wiltberger, Mechanical Engineers. "The large, relatively flat site," relates the architect, "provided the opportunity to spread out in a campus-type plan. Not only do the smaller buildings relate better to the scale of the child but the school within a school concept makes for a better educational program." Three classroom clusters, a separate kindergarten building, and an administration building—in all, five structures—will be placed irregularly around a central court and connected with generous covered walks. The large administration building will have offices, an all-purpose room, and various specialized storage and utility rooms. A long pick-up drive, separated from the road, will be used by buses and private cars to bring the children to school, while staff and visitor parking will share the service drive off the side road. Construction will be of rigid-steel frame, masonry walls, reinforced-concrete floors, and a preformed roof deck with built-up finish.

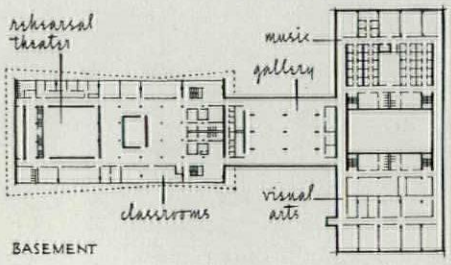
(*See* INTERIOR DESIGN DATA.)



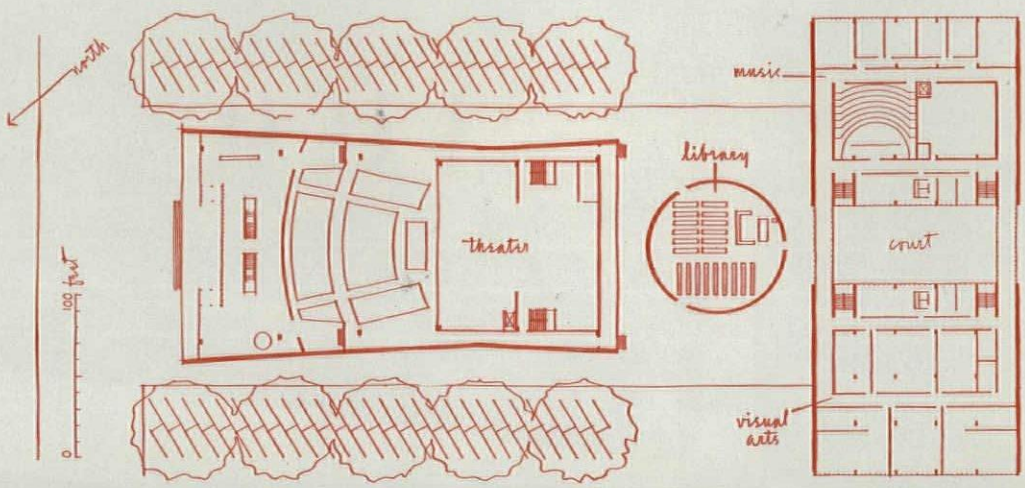


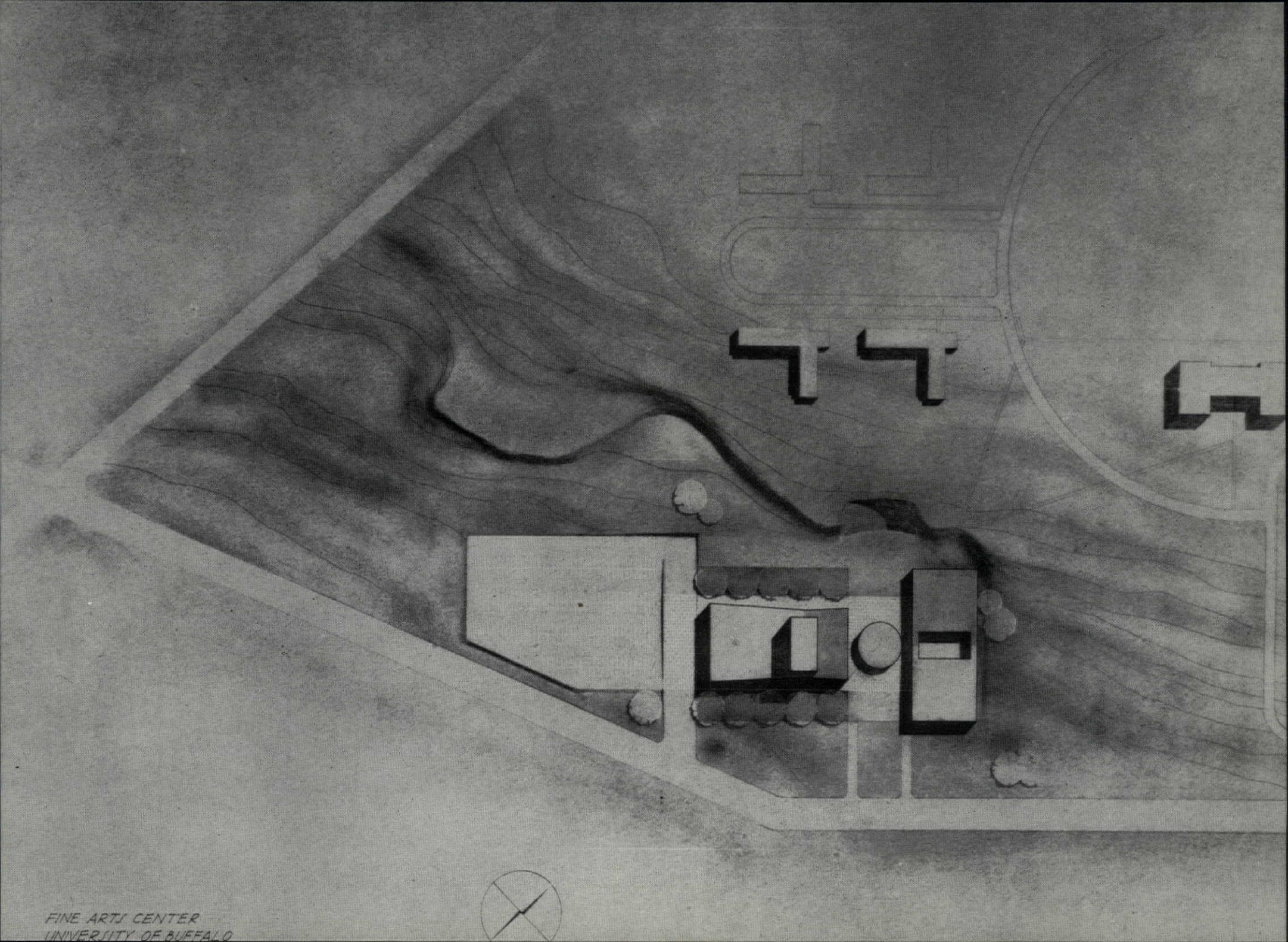
education: *Design Award*





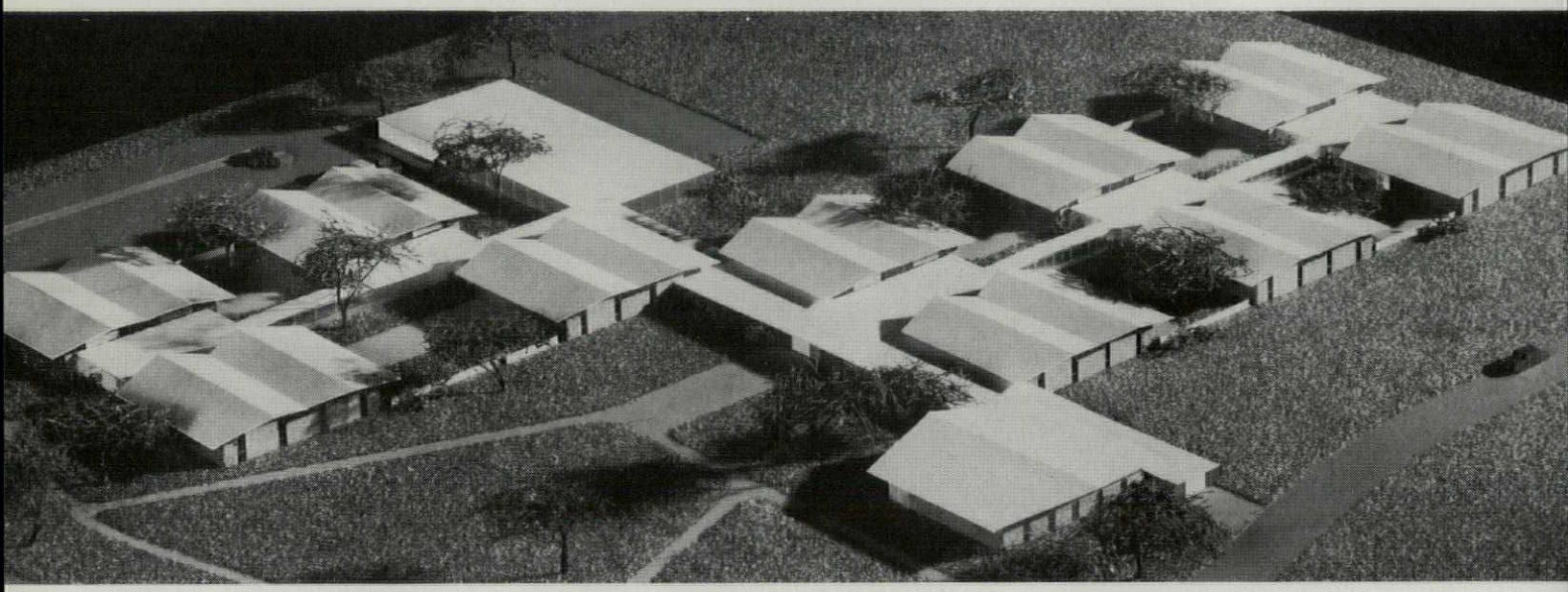
Fine Arts Center for University of Buffalo, Buffalo, New York: Paul Schweikher, Architect; Earl Carlin, Peter Millard, Ed Marcus, Associates; Henry A. Pfisterer, Structural Engineer; Fred S. Dubin Associates, Mechanical Engineers; Bolt, Beranek & Newman, Acoustic Consultants. In order to construct this building complex in convenient stages, the Fine Arts Center was designed of three distinct and separate elements—the theater, the library, and the music and art building. A below-grade exhibition hall connects the theater with the music and art building. Structurally, the music and art building, the first element to be erected, will be of reinforced concrete with a specially formed pan floor system. The circular library is to be a steel frame employing a three-way roof truss. The theater will be a concrete frame structure with exposed concrete roof trusses. Materials for exterior walls will be: slate on masonry back-up, glass, and stainless-steel skin for library and stage house. Interior walls will be of concrete masonry, left exposed or covered with acoustical panels.



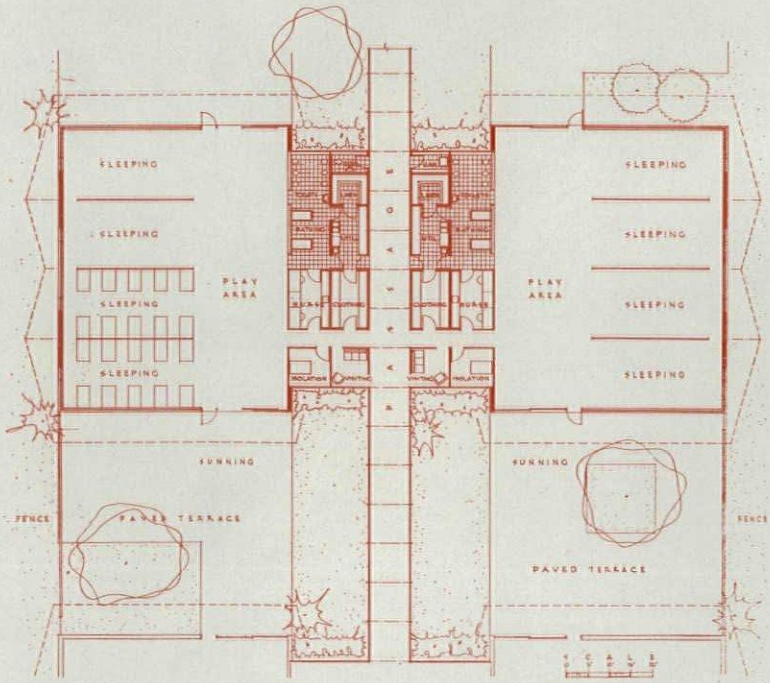


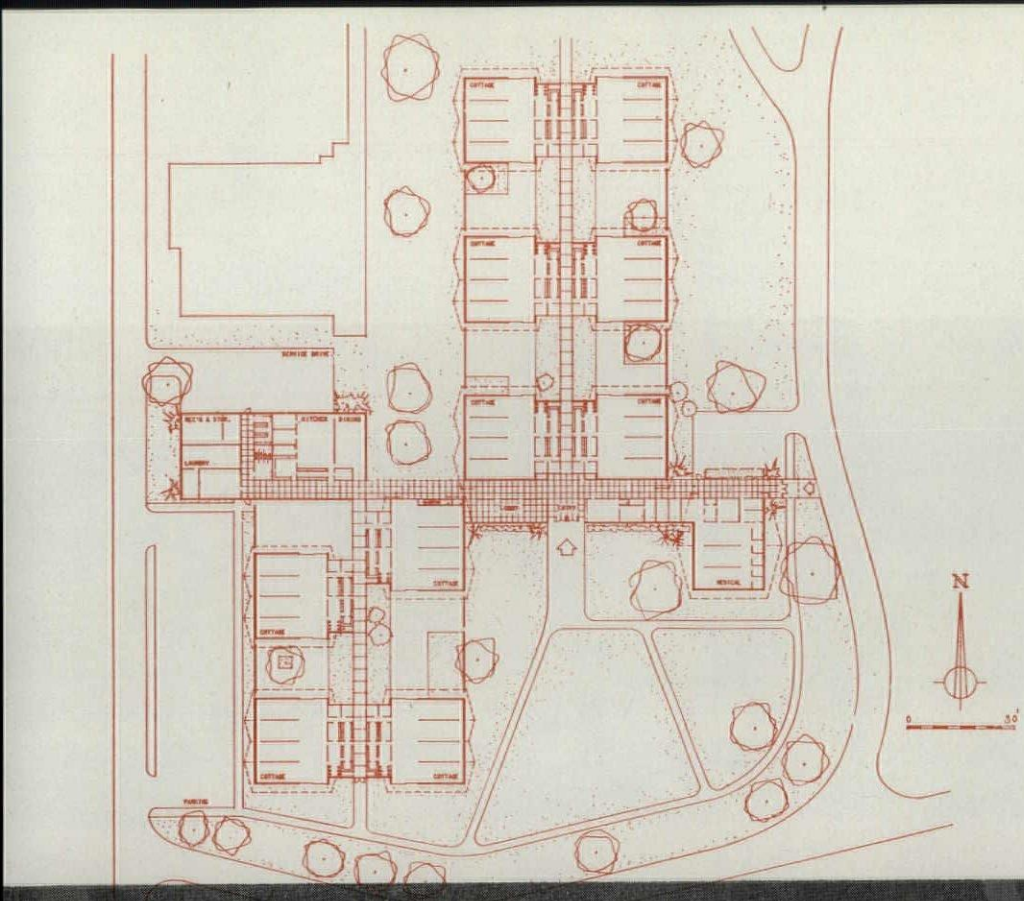
FINE ARTS CENTER
UNIVERSITY OF BUFFALO

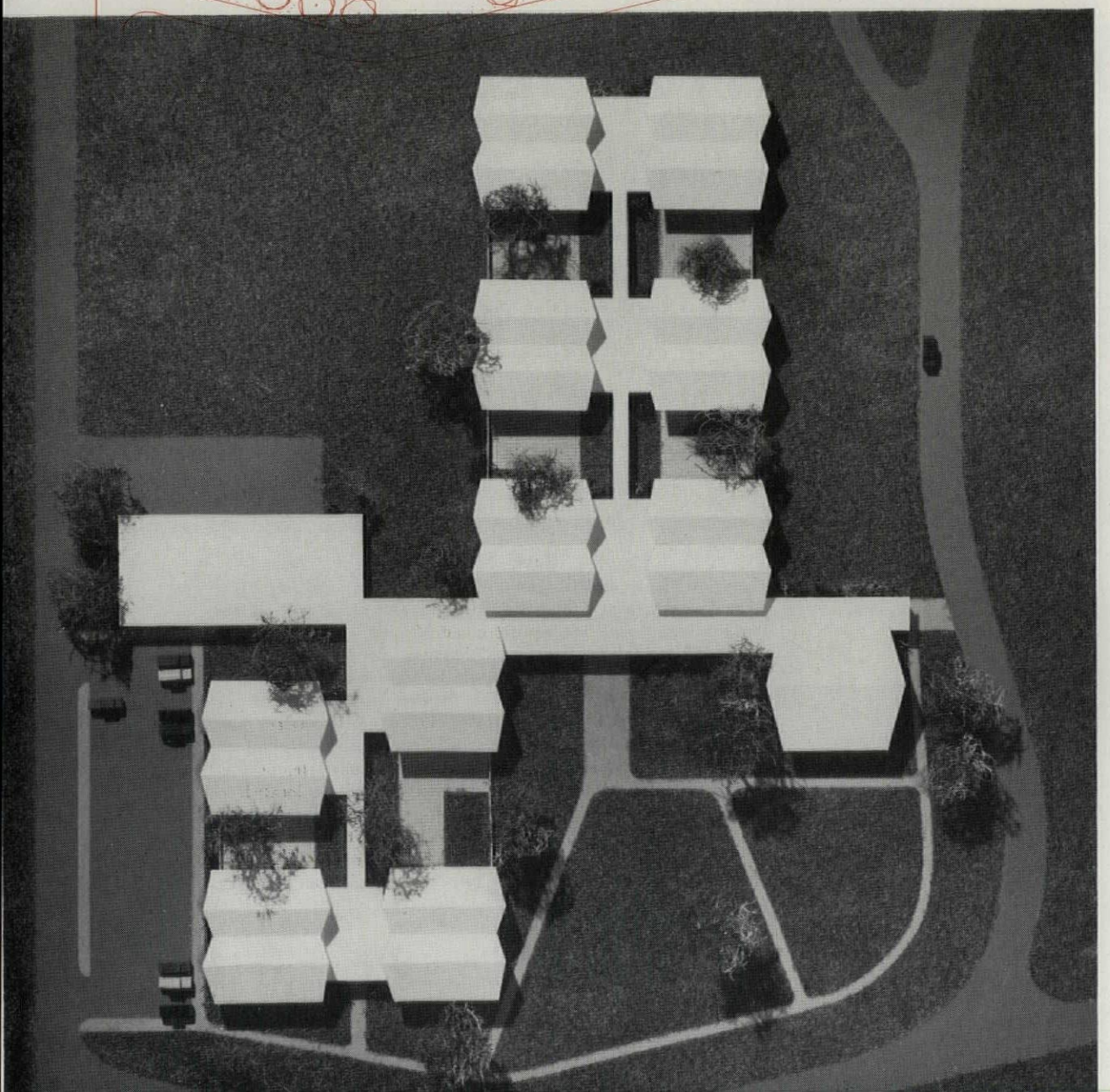
health: *Award Citation*



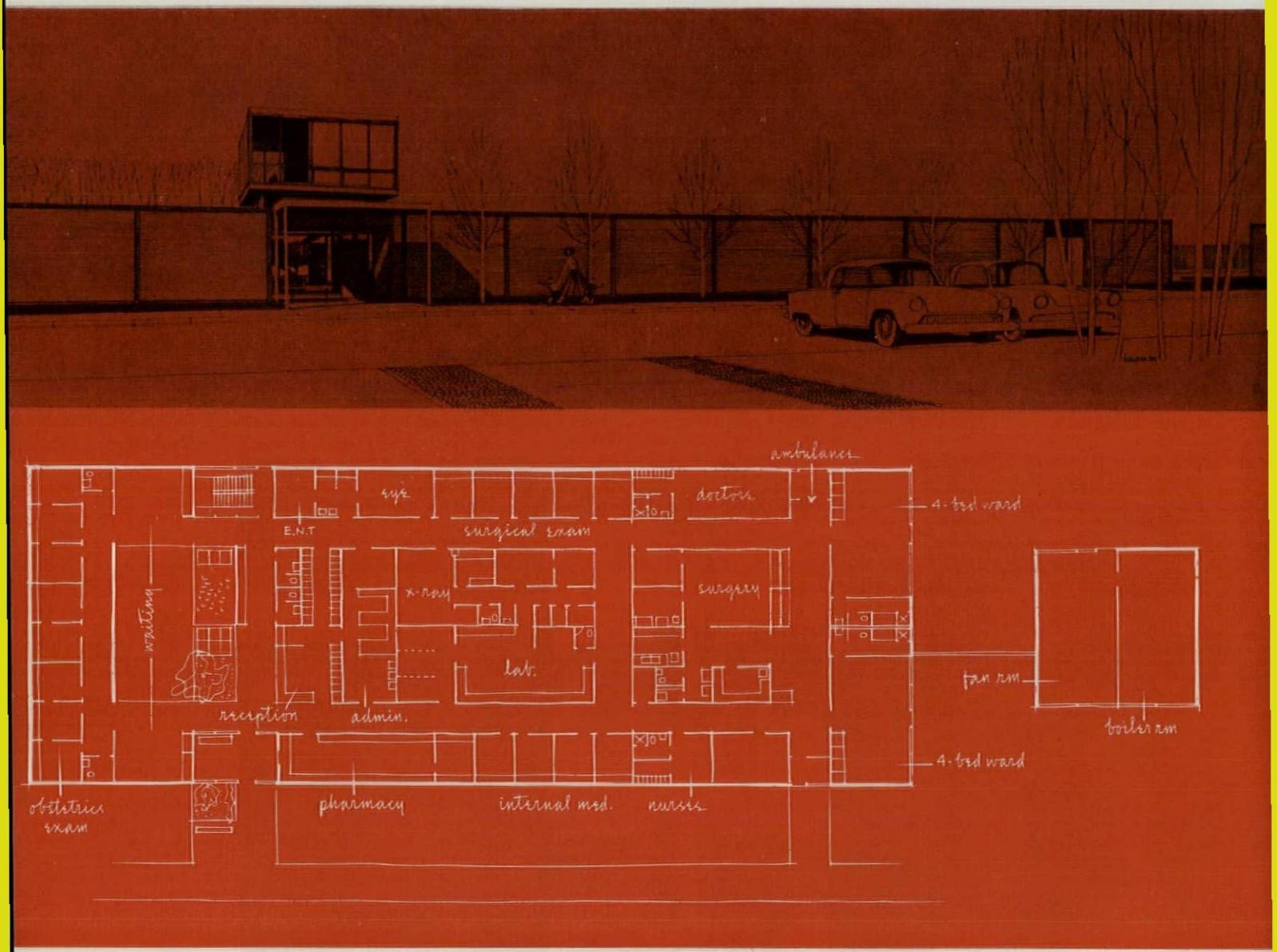
Nursery Building for State of Michigan, Lapeer, Michigan: Smith, Tarapata, MacMahon, Inc., Architects. With this building, to be erected on the grounds of a state mental institution, the architects have attempted to "provide an appropriately cheerful, low-scale, noninstitutional environment for very young children who are patients of the hospital." The 400 young patients will be housed in small cottages, arranged—due to the restricted site—in two rows. A cross corridor will connect with the administration, medical and service unit. "Each cottage," write the architects, "houses 40 patients in cribs, arranged in clusters, separated by low glass partitions. The radiantly heated play space can be easily supervised from the glass-enclosed nurse's station, as can the bathing, toilet, and isolation areas." Construction will be of steel, walls of brick, glass in aluminum frames. Heat is to be supplied to buildings from a central boiler plant.



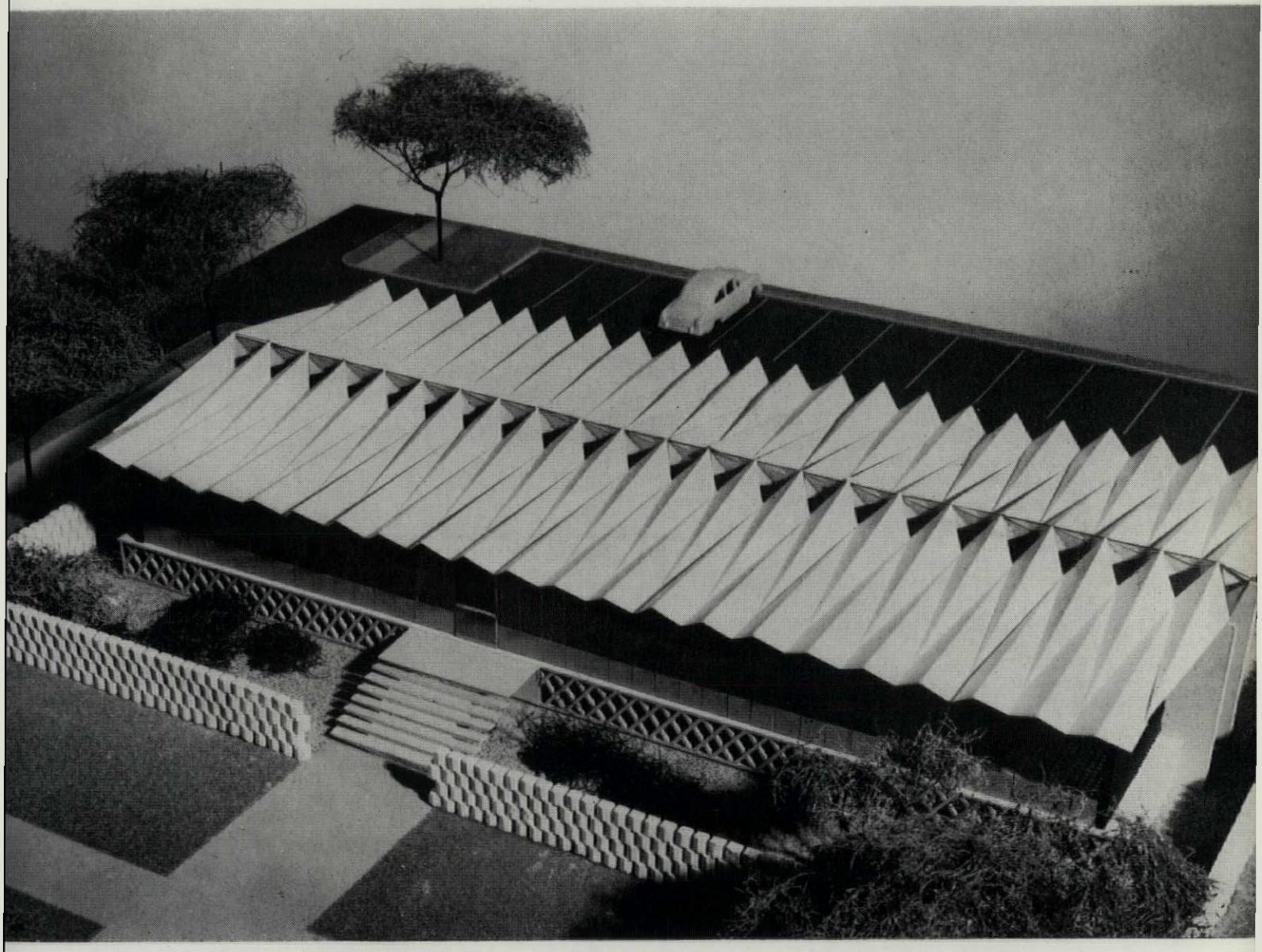

N
0
30'



health: *Award Citation*

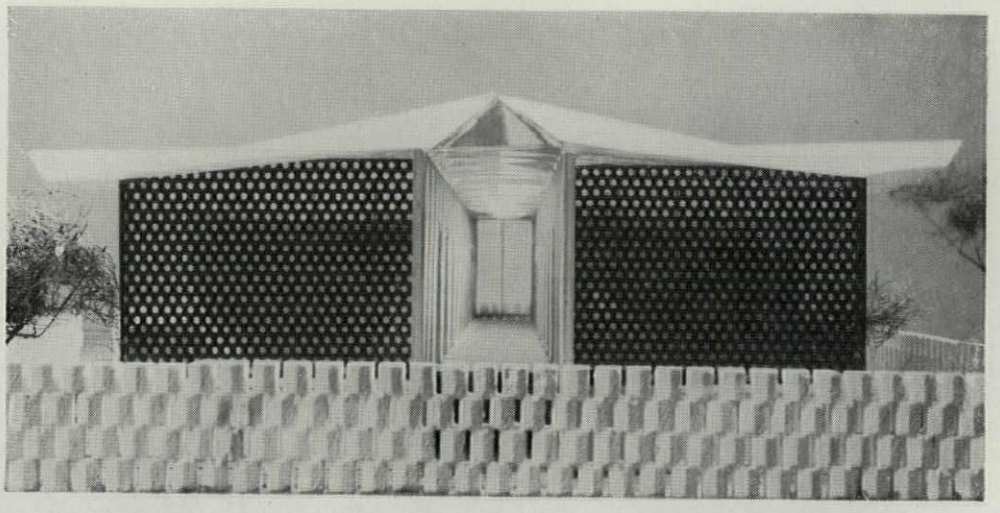


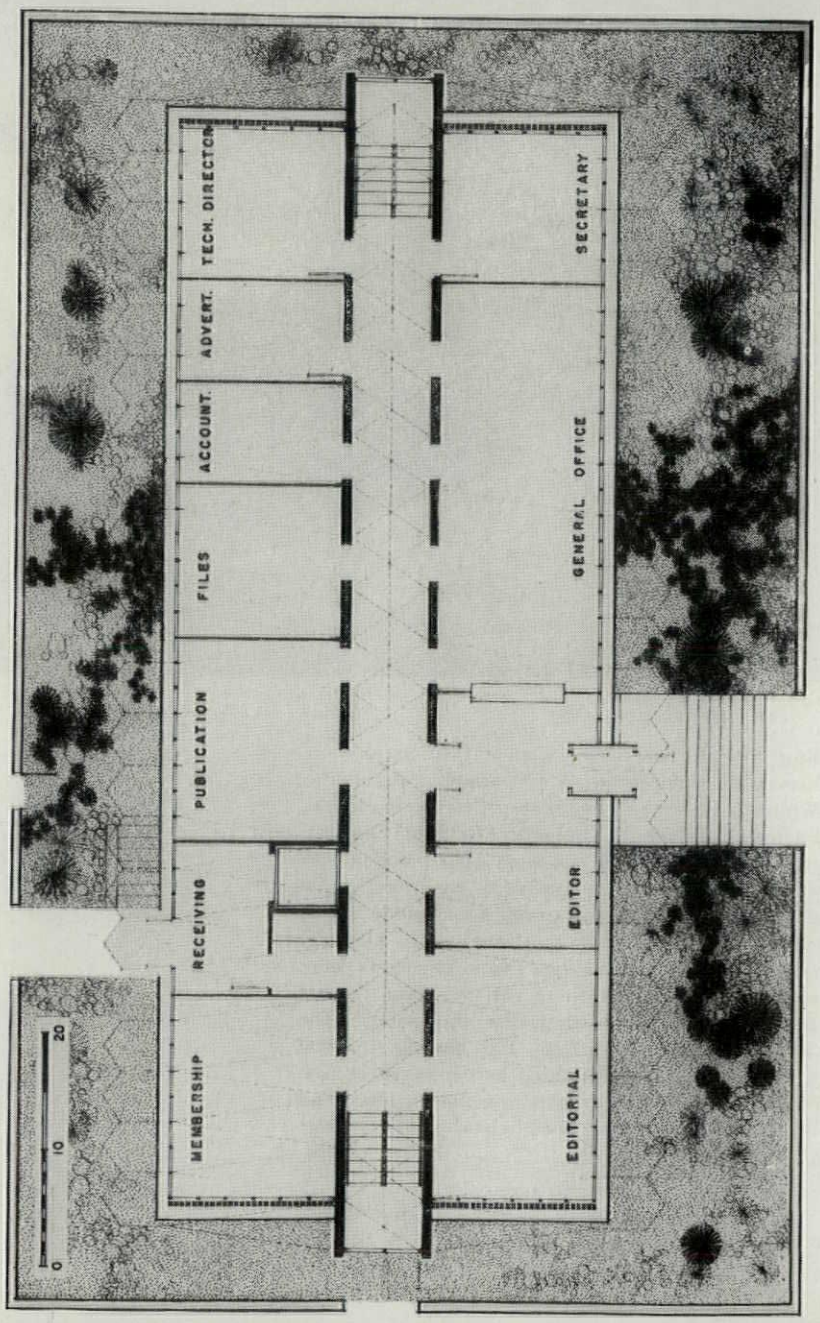
Bartron Clinic and Hospital, Watertown, South Dakota: Thorshov & Cerny, Inc., Architects-Engineers. This clinic will replace an existing, though inadequate, clinic hospital. It will later be expanded to include a new small hospital. Location of the new building will be away from the main business district in a newly developing commercial area. The three main divisions of the proposed building are: clinic proper, clinic-hospital services, and hospital. In addition, the building will have a private pent-house office (accessible only from the outside) which may later be converted into an apartment. The future hospital will be located on the second floor and will have direct access from the ambulance entrance. When expansion takes place, the present recovery wards are to be converted to offices and examination rooms. The Jury commended the simplicity of the plan and the pleasant detailing of the entrance.



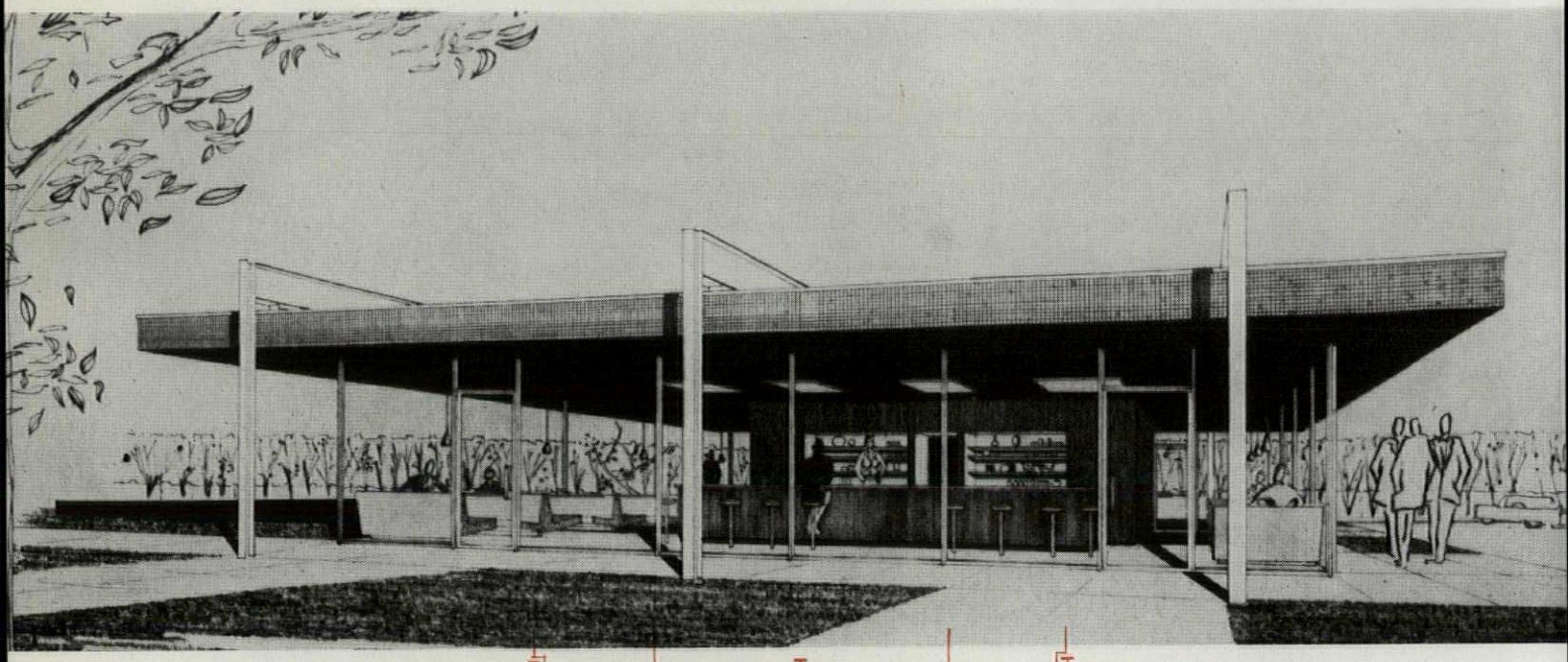
Office Building for the American Concrete Institute, Detroit, Michigan: Yamasaki, Leinweber & Associates, Architects; Ammann & Whitney, Structural Engineers; Cass S. Wadowski, Mechanical Engineer; Henry J. Guthard, Electrical Engineer. "The request of the client to build this small office building with imaginatively used concrete was a fascinating challenge," write the architects. "In order to achieve a design most appropriate to concrete it was felt that the building must express the plasticity of the material. Furthermore, since concrete is inherently more natural to slab-type construction than to post-and-beam, the use of concrete posts was avoided to dramatize this point." The folded slab will be cantilevered from the bearing concrete corridor walls, which are further stabilized by the basement box. The roof slab will be pierced by skylights over the corridor. End walls will be grills of concrete pipe; spandrels of precast panels; garden wall of precast-concrete blocks.

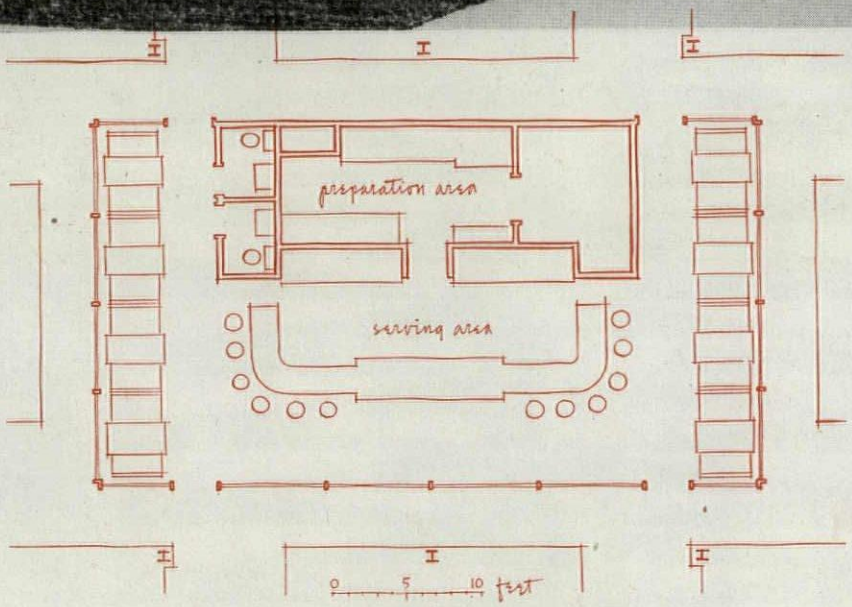
ACI Building (continued)



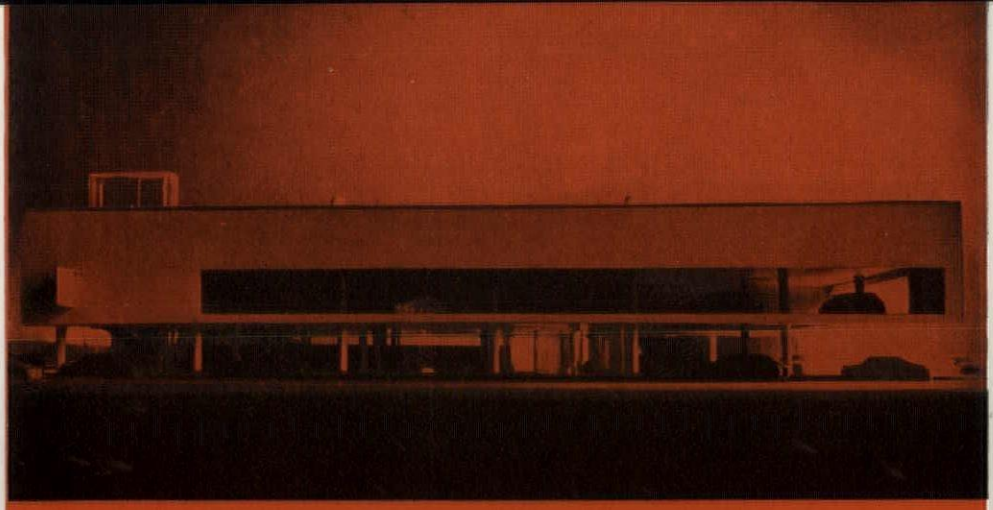


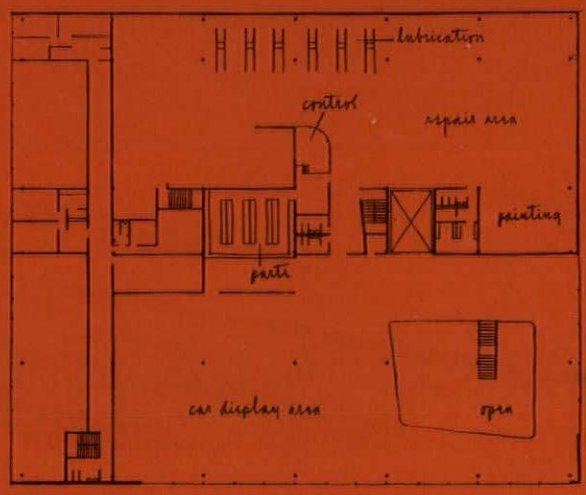




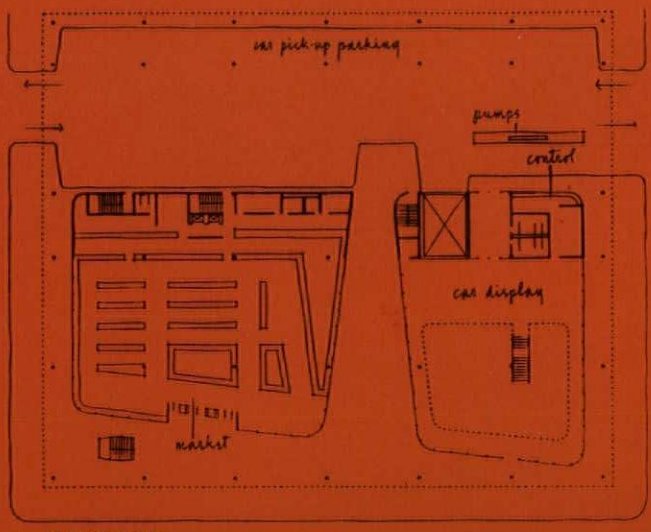


Restaurant for William Carl Hiller, Flint, Michigan: Clifford E. Gibbs, Architect; James E. Tomblinson, G. D. Hanna, G. E. Harburn, Associates. The client wished a building that would attract attention to his food and beverage trade. "The appearance and attractiveness of the building will rely on a bold structural expression," writes the architect, "a fascia of colorful glass, mosaic tile, visual penetration, and a studied color scheme." For cleanliness and ease of maintenance all interior walls and ceiling will be of porcelain enamel; floor will be terrazzo; equipment, stainless steel; fixtures, veneered with plastic laminate. The exterior walls will be of glass and porcelain enamel. The simple plan, having pass doors at each corner and an equal roof overhang on all sides, will make this building a workable prototype for any relatively flat site and all orientations.

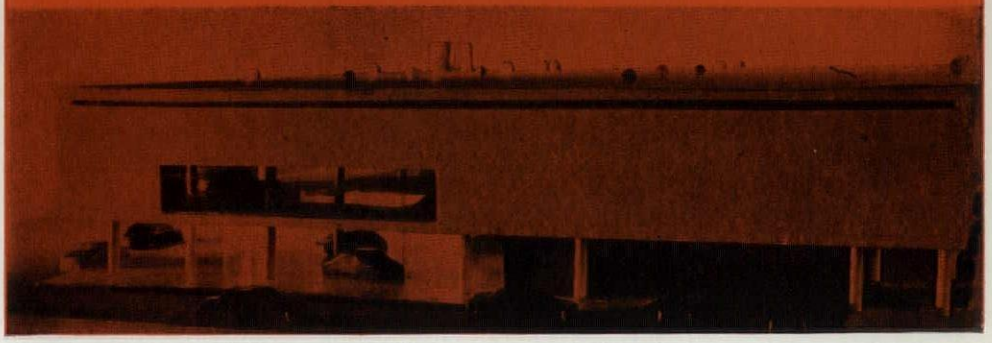




UPPER LEVEL

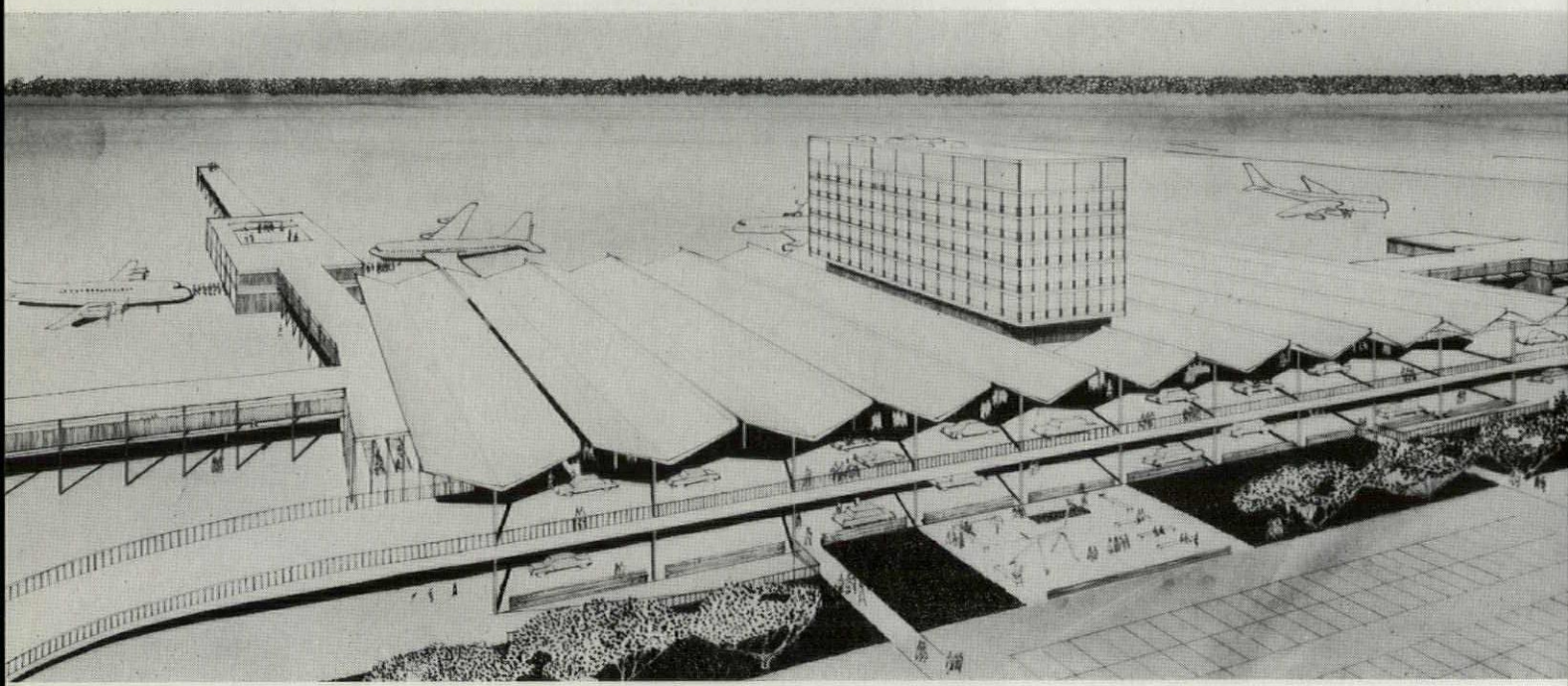


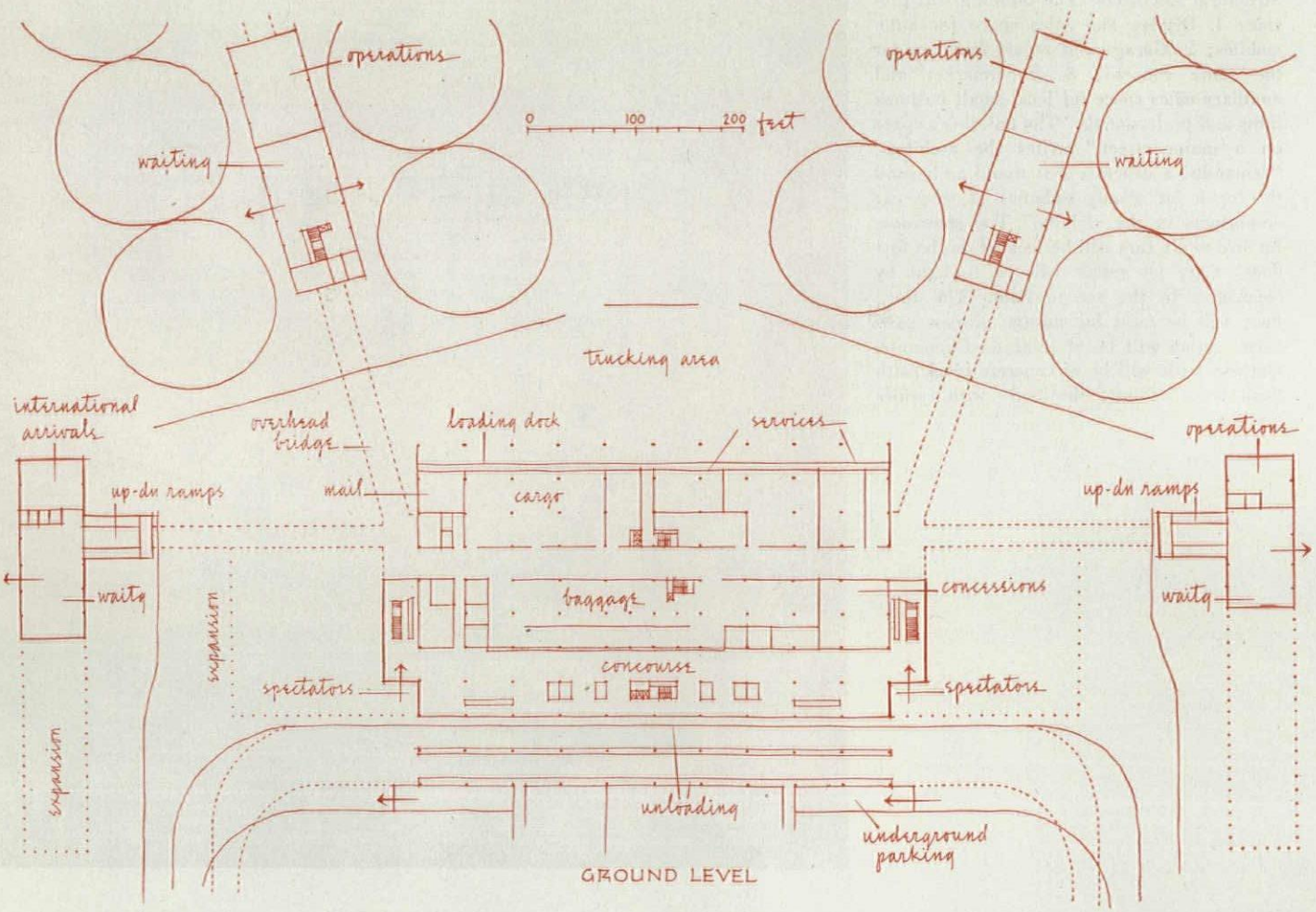
GROUND LEVEL



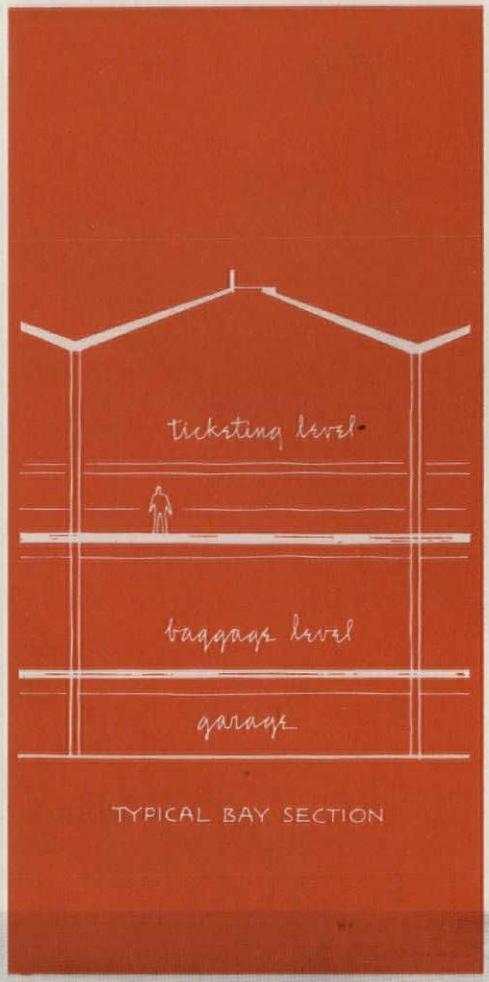
Business Building and Car Show Room for Hall-Ford-Mercury Co., Toledo, Ohio: William I. Hohauser, Inc.; Architect; Sanford Hohauser, Joseph D'Amelio, Associate Designers; Severud, Elstad & Krueger, Structural Engineers. The building will provide: 1. Display and sales space for automobiles; 2. Garage and repair facilities for the same concern; 3. Supermarket and auxiliary office space for local small business firms and professionals. "The building's space on a major street," writes the architect, "demanded a structure that would go beyond the 'open lot' gaudy esthetics of most car emporiums in the vicinity." The showroom for five to six cars will be located on the first floor. Cars for repair will be brought by mechanics to the second floor. The third floor will be used for storage of new cars. Construction will be of reinforced concrete. Outside walls will be of concrete block with flush-struck joints, finished with white cement.

commerce: *Award Citation*

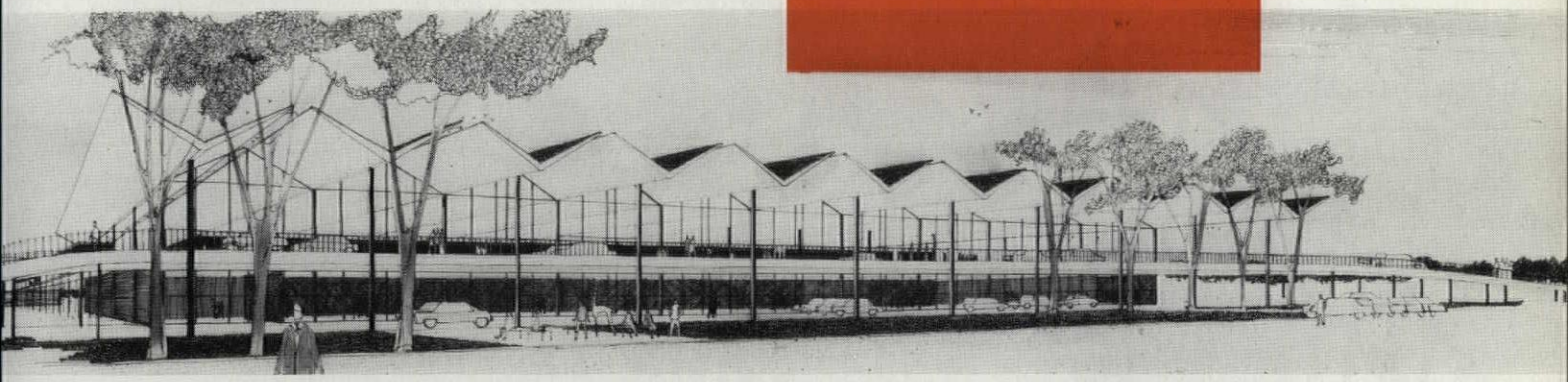


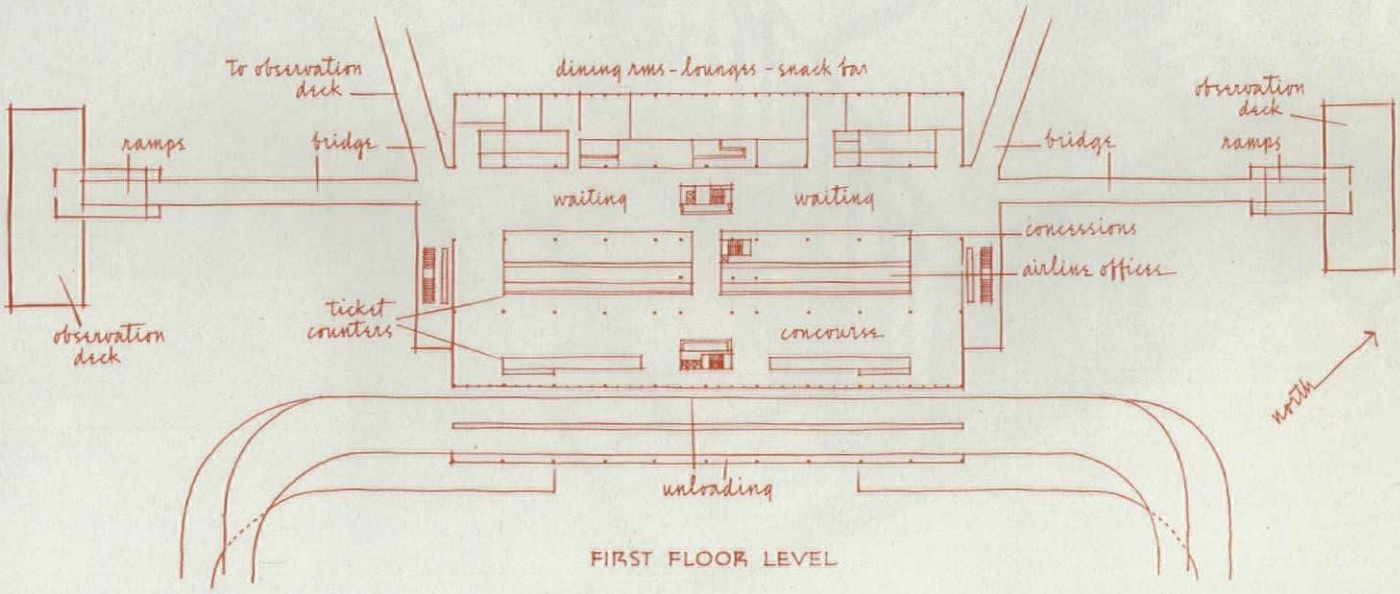


Air Terminal Building for Minneapolis—St. Paul Metropolitan Airports Commission, Minneapolis, Minnesota: Thorshov & Cerny, Inc., Architects-Engineers; Leigh Fisher & Associates, Planning Consultants. It is anticipated that 30,000 persons daily will be concentrated in the new "terminal city" of which this building marks the beginning. Hotel accommodations to be designed by the architects and a parking garage with related car rental facilities will be developed as traffic warrants. It was the architects' primary aim to design a complete air-terminal structure in the first stage, with provisions for easy and economical expansion. Aircraft loading can be increased without difficulty from 20 positions to an eventual 39 positions. Persons going to the terminal building will use a one-way access road leading up to the level of the main entrance, where a covered outdoor unloading area is provided. On entering the building, passengers will easily recognize airline ticket counters, which have been arranged near the point of entry. Waiting facilities will be dispersed in the form of gate lobbies, each serving four gate positions. Retail shops and food concessions are located between ticketing area and aircraft loading positions. Passengers will leave the terminal building from the lower level, where the bag claim stations are, via a single-direction roadway. Truck and flight-service vehicular traffic will be entirely removed from critical passenger-handling areas.

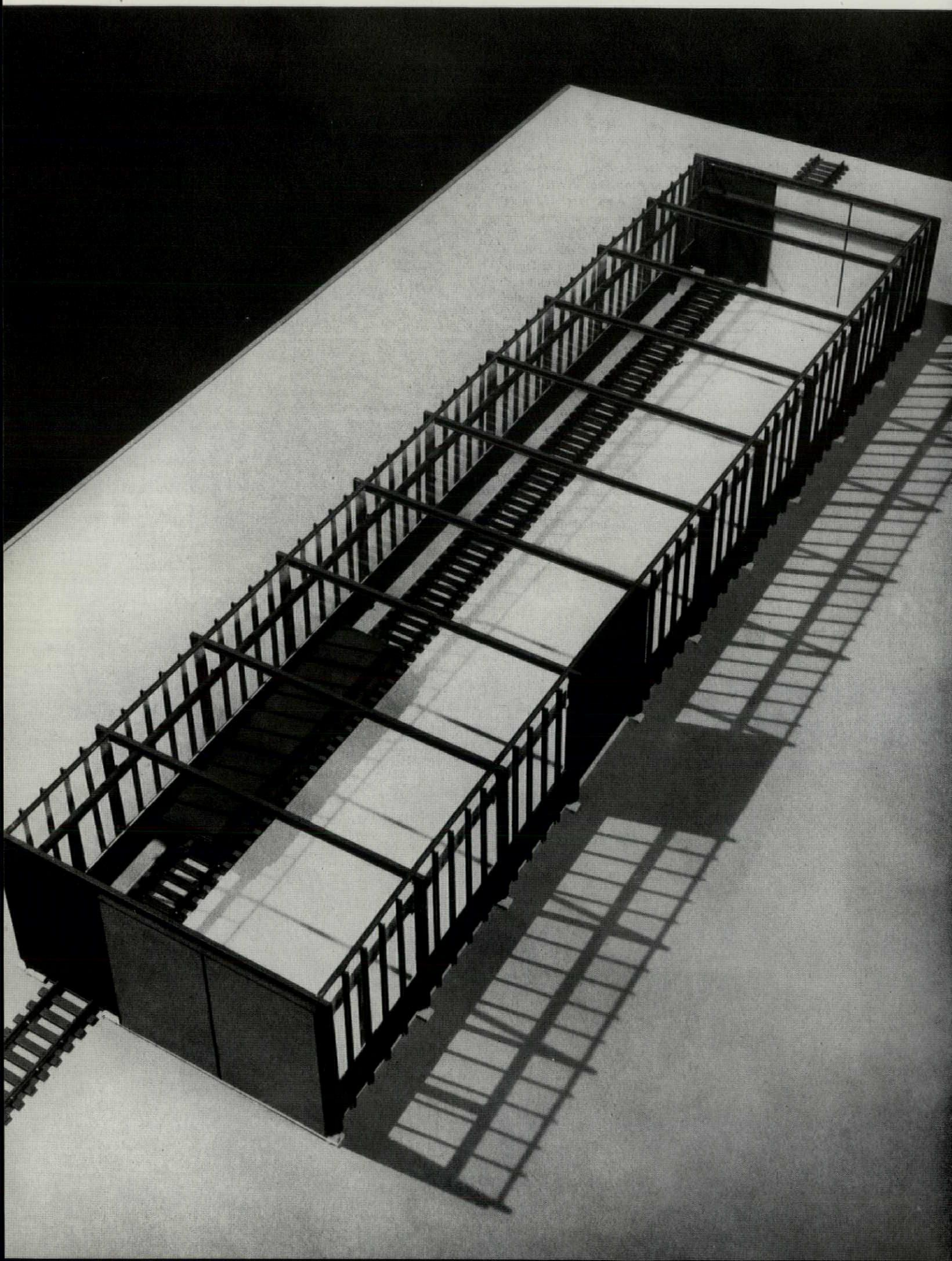


TYPICAL BAY SECTION

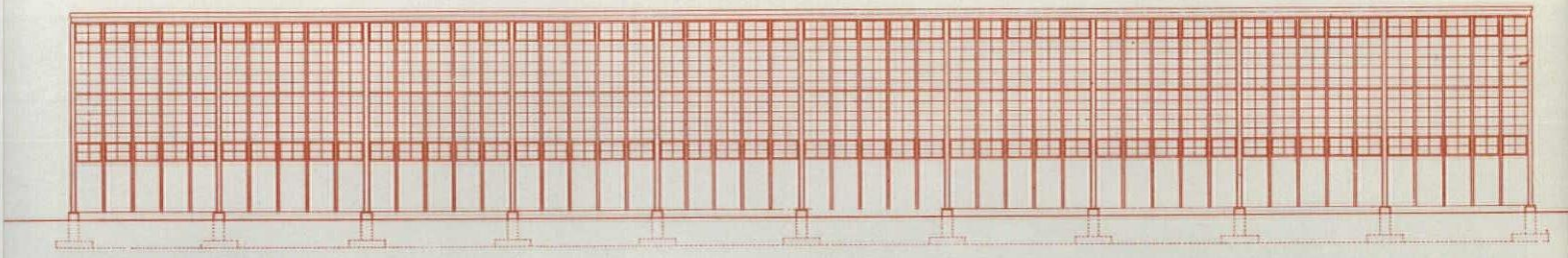




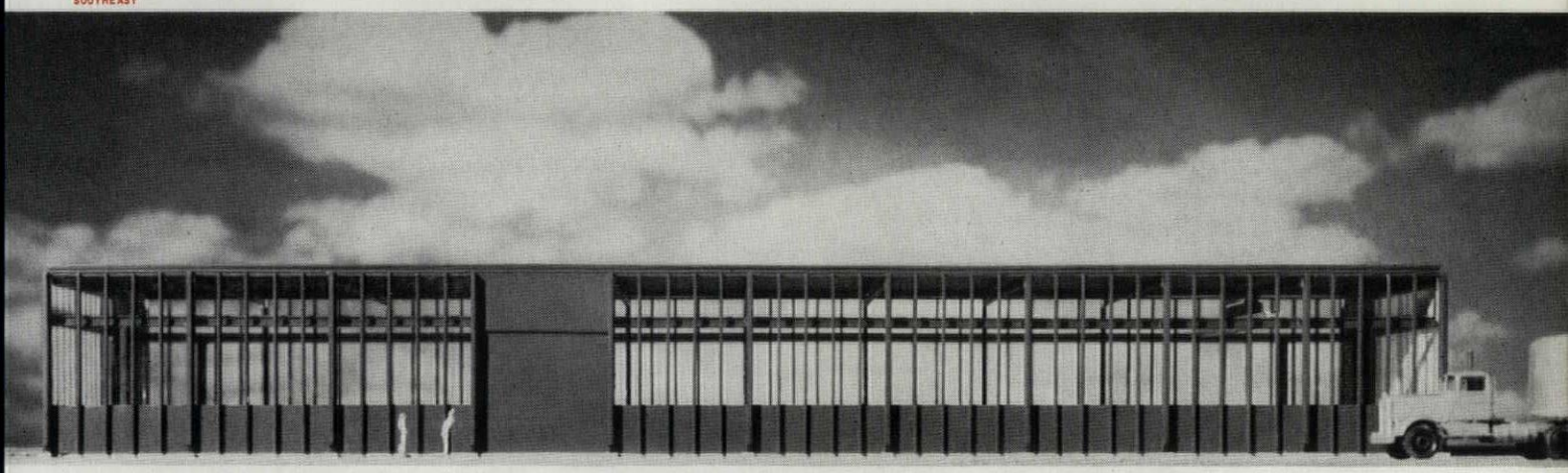
FIRST FLOOR LEVEL

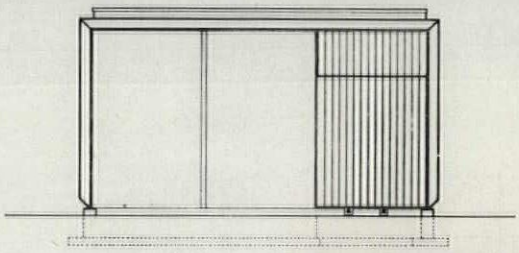


industry: *Award Citation*



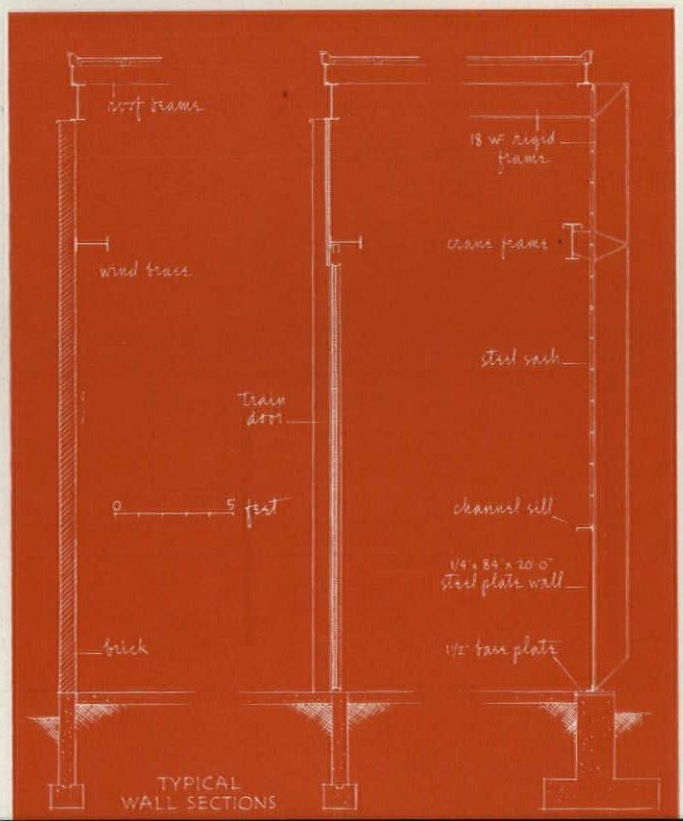
SOUTHEAST





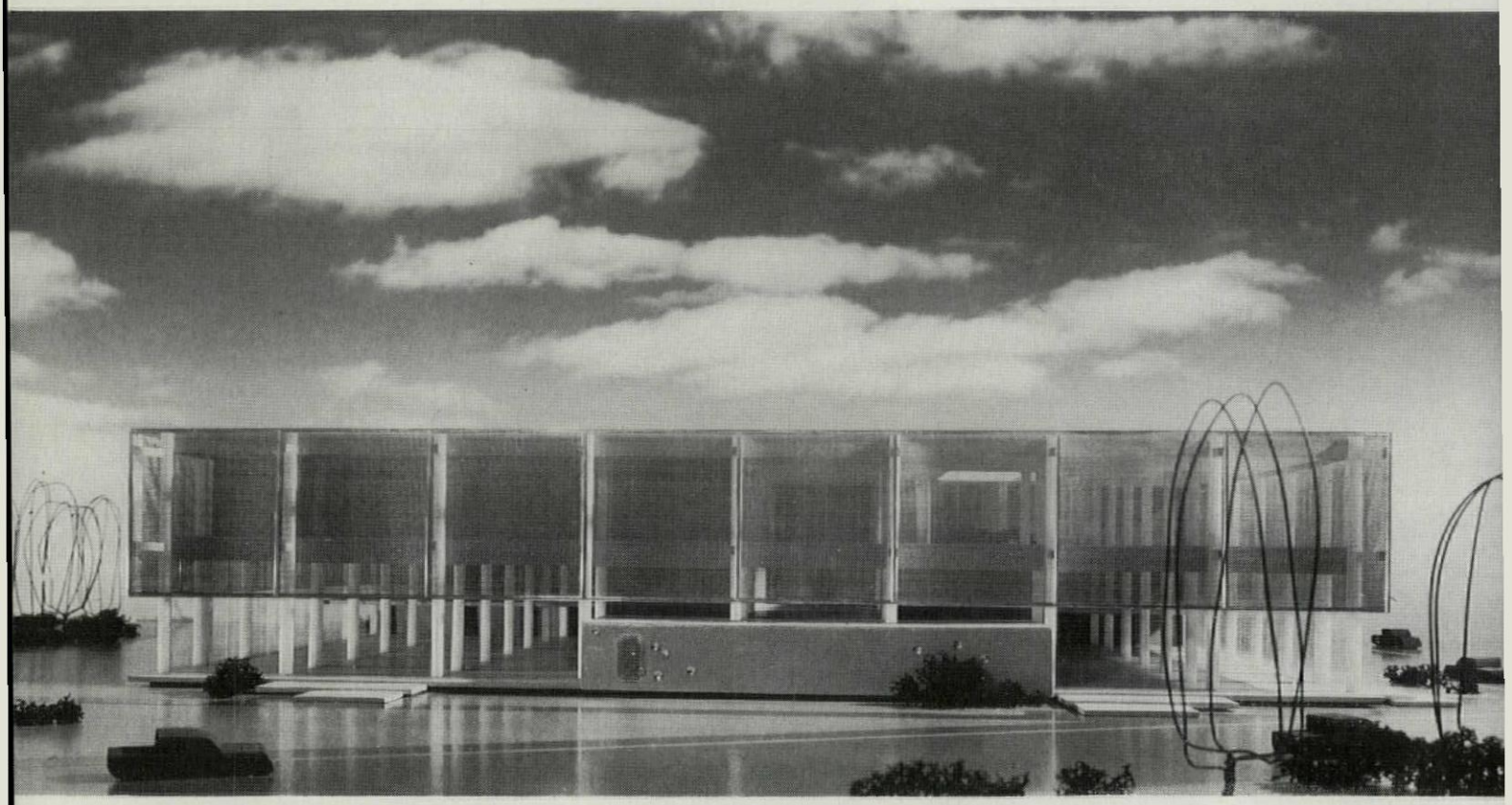
SOUTHWEST

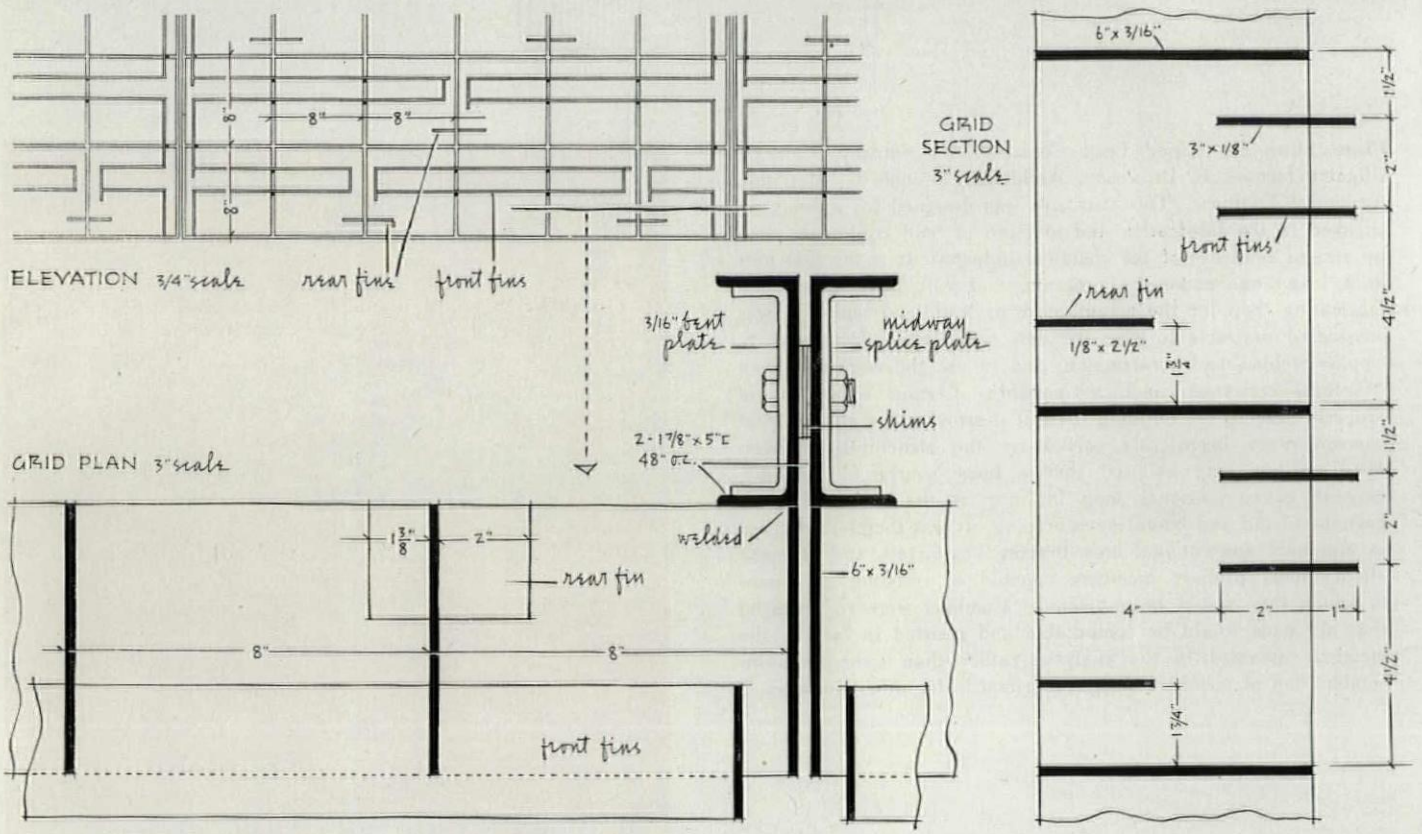
Plate Shop for Allied Lead Construction Company, Chicago, Illinois: Jacques C. Brownson, Architect; Thomas G. Morrison, Structural Engineer. This structure was designed for a company engaged in the fabrication and erection of lead equipment used by various branches of the chemical industry. It is the first unit in a long-range expansion program, and will serve as a steel-fabricating shop for the manufacture of lead-lined tanks. It was considered desirable to give the new shop large glass areas, to employ welded-steel construction, and to use the company's own structural crews as much as possible. Certain difficulties—in properly bracing the building without destroying the architectural concept—were ingeniously solved by the structural engineer. Morrison has long believed that a large source of reducible expense in conventional shop building is the arbitrarily proportioned wind and lateral cross-bracing. It was therefore decided to eliminate conventional cross-bracing completely and to make all members primary members capable of resisting all forces to which they would be subjected. Members were so arranged that all loads would be computable and resisted in fact by the members assumed in the analysis, rather than some unknown combination of members designed primarily for other purposes.



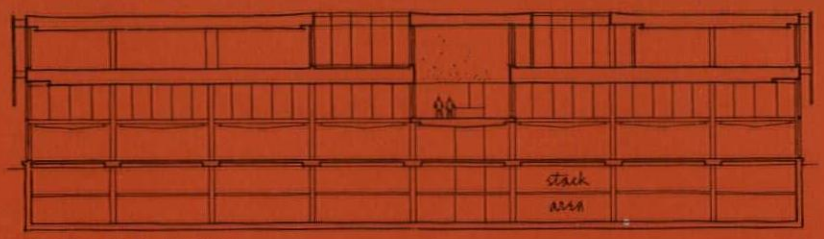
TYPICAL WALL SECTIONS

public use: *Design Award*

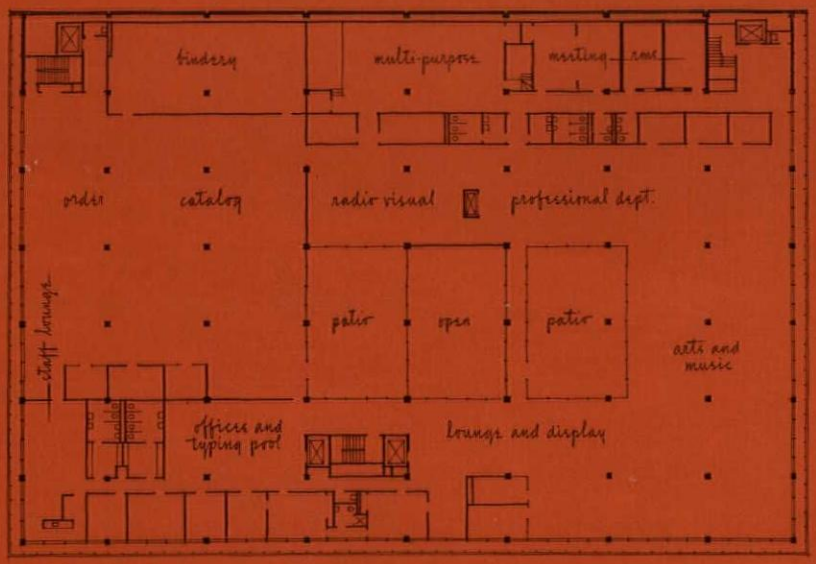




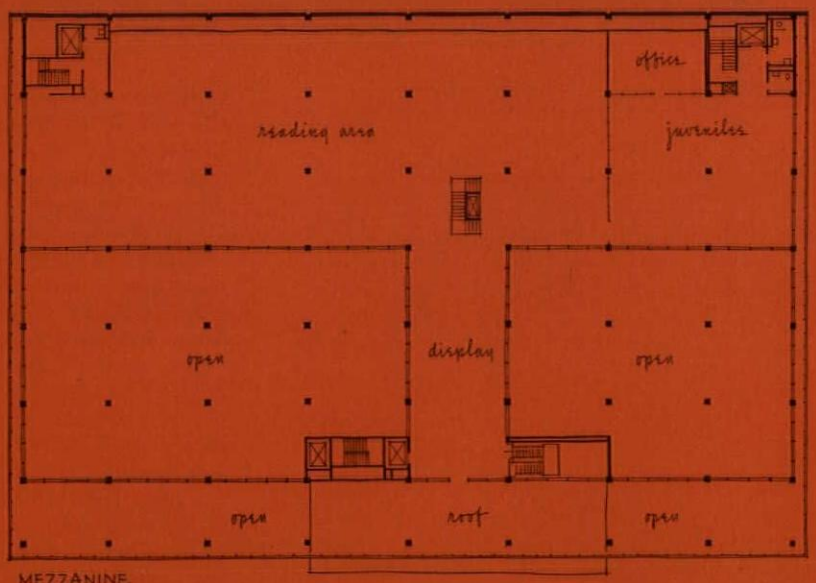
Public Library for City of New Orleans, Louisiana: Curtis & Davis, Architects-Engineers; Goldstein, Parham & Labouisse, Architects; Favrot, Reed, Mathes & Bergman, Architects; Walter J. Rooney, Jr., and Sidney J. Folse, Jr., Associates; deLaureal & Moses, Electrical Engineers; Leo S. Weil & Walter B. Moses, Air-Conditioning Engineers; A. W. Thompson & Associates, Structural Engineers; Joseph Pazon, Mechanical Engineer. An ingenious plan arrangement, with openings both horizontally and vertically, will offer the visitor to this library a clear view of all major departments immediately upon entering. Major reading and reference areas are to be located on the ground floor, which will be clearly visible through glass partitions from the browsing and juvenile rooms on the mezzanine. Two elevators will serve the arts and music section, professional library, and audio-visual departments, listening rooms, administrative and staff facilities on the second main level. Multipurpose room and meeting rooms also on this level, may be reached directly from a public side-street entrance. To avoid disturbing library users, the book returns, withdrawals, and registrations will be handled in an area off the main lobby. From there, returned books will be chuted to book stacks on two levels in the basement. Book requests are to be conveyed by pneumatic tubes, and lifts will forward books from the stacks to the various departments. Foundations will be of reinforced concrete, the super structure of steel. Exterior walls of this air-conditioned building are to be almost entirely of glass. On the upper floors, a handsome aluminum grill (*details acrosspage*) will give protection from sun and glare.



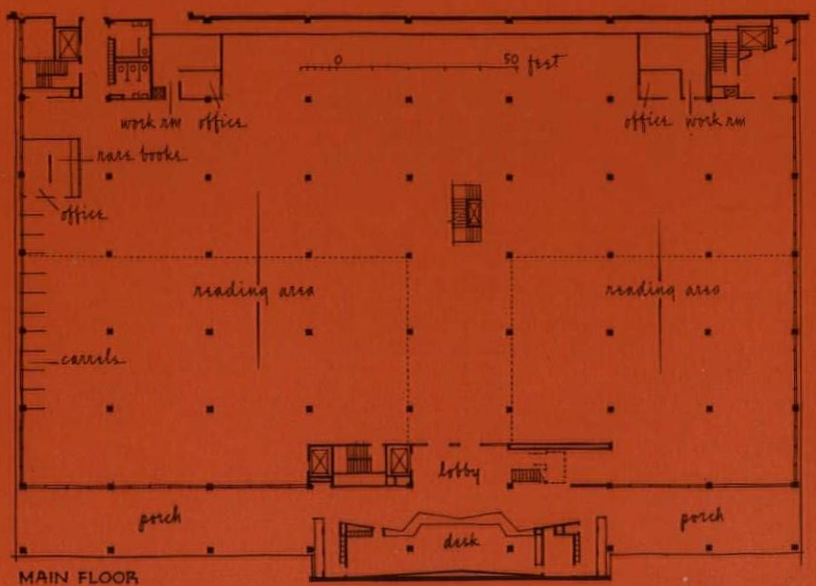
LONGITUDINAL SECTION



SECOND FLOOR

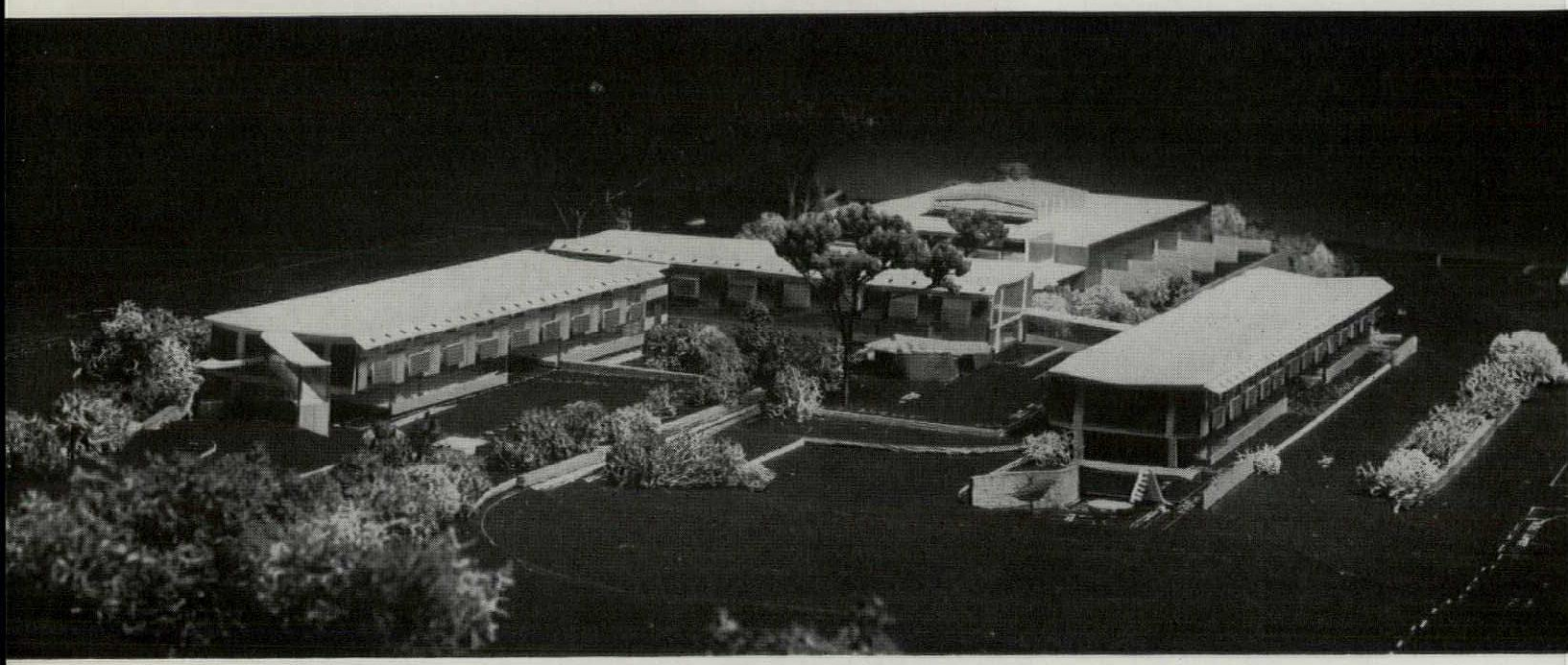


MEZZANINE



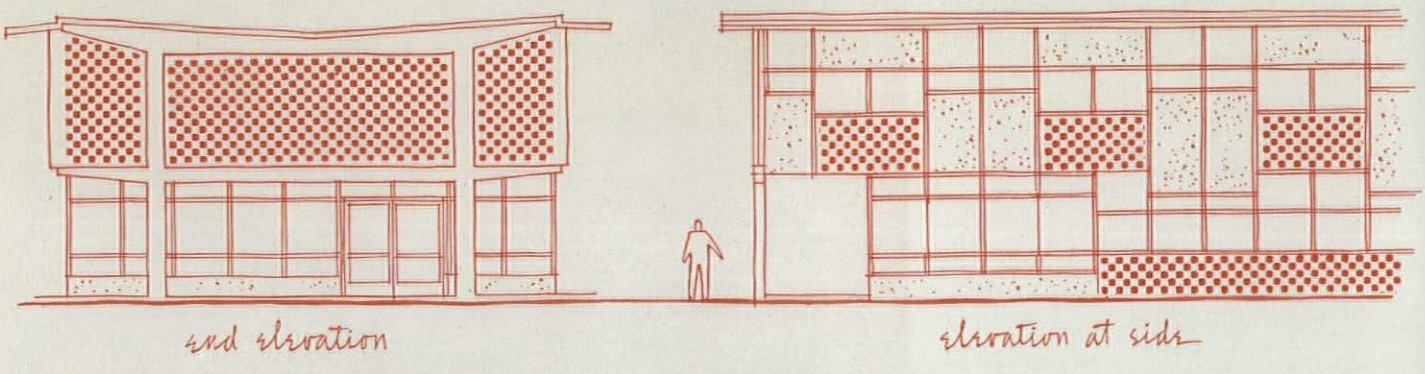
MAIN FLOOR

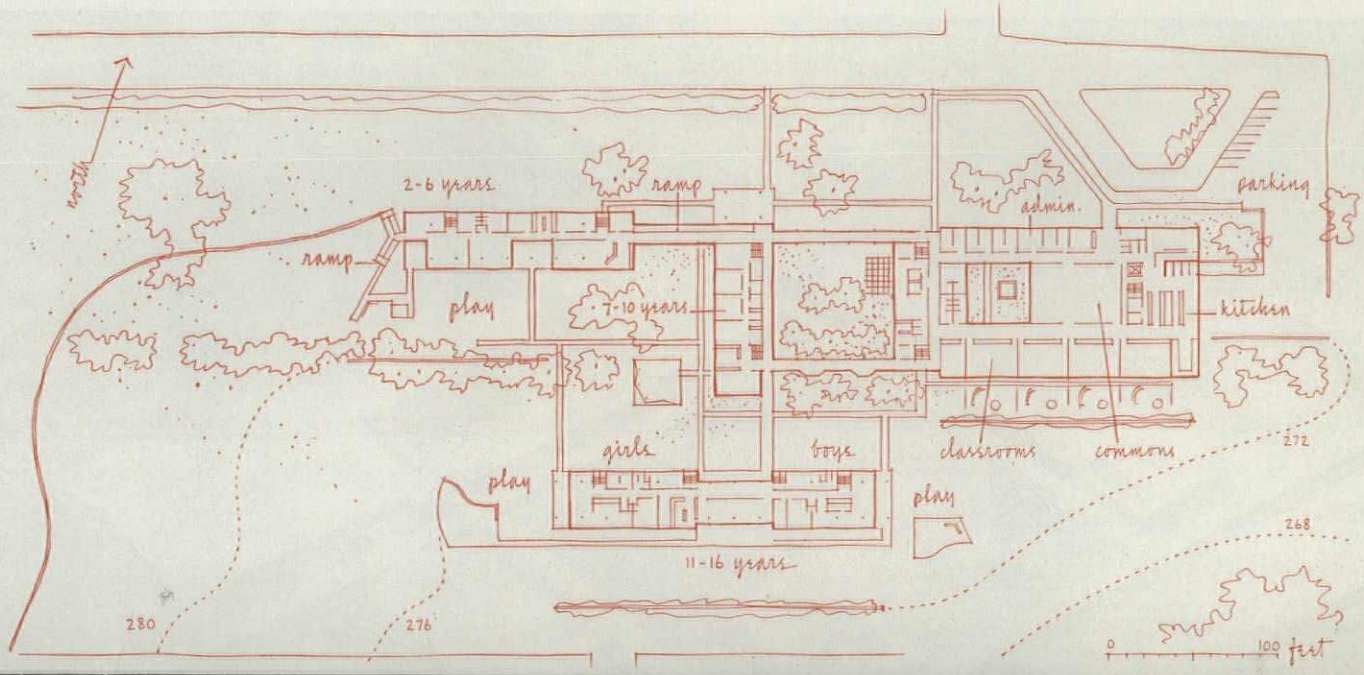
public use: *Award Citation*

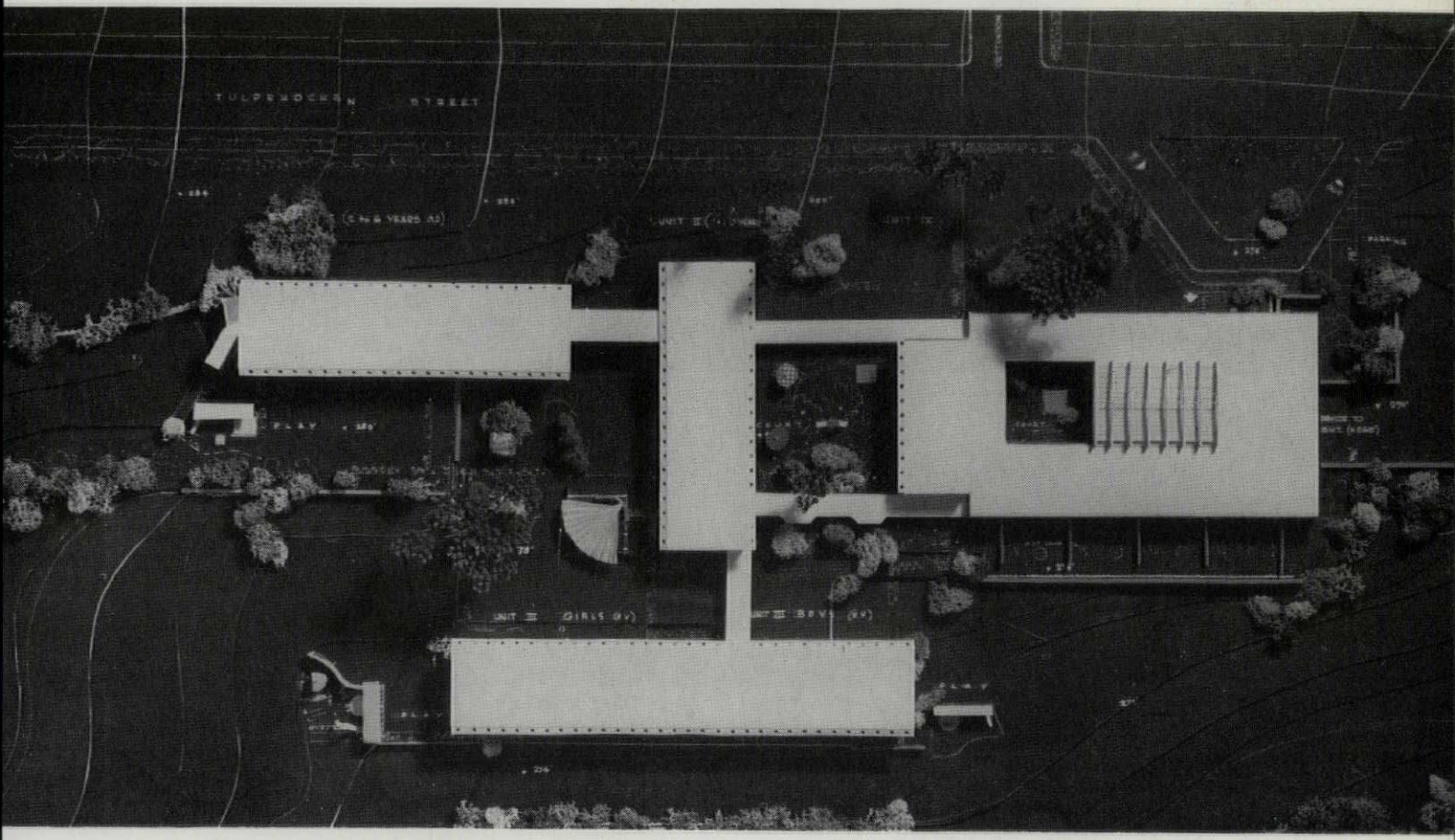


Children's Reception Center for Department of Welfare (Commissioner R. E. Wise), Philadelphia, Pennsylvania: Bellante & Clauss, Architects; W. C. Cranmer, Associated Architect; A. Gertrude Slaven, Interior Designer; Alfred Clauss and Axel Schulze, Structural Engineers; Charles F. Barry, III, Mechanical Engineer; Manuel Kaufman, Deputy Commissioner, Department of Welfare, Consultant. This center will provide living, educational, recreational, and medical facilities for the temporary care of 150 homeless children. The campus-type plan will have four two-story living units and a large, one-story administration and service center—all to be connected by covered walks. Each of three age groups from infants to young teen-agers will have its own building, and a fourth structure is planned for new arrivals, handicapped children, and young patients requiring isolation. Units will be self-contained, with provisions for eating, sleeping, study, and play. Food will be prepared in a central kitchen and brought to a serving pantry in each building. Every unit will also have an apartment for house parents. Four classrooms, a workshop, art and music rooms, and a large common room will be in the administration building, where offices and dining rooms for administrative and medical staff are also located. Construction of the buildings will be of concrete, enlivened with mosaics. The end walls and sun-control panels are to be of terra cotta.

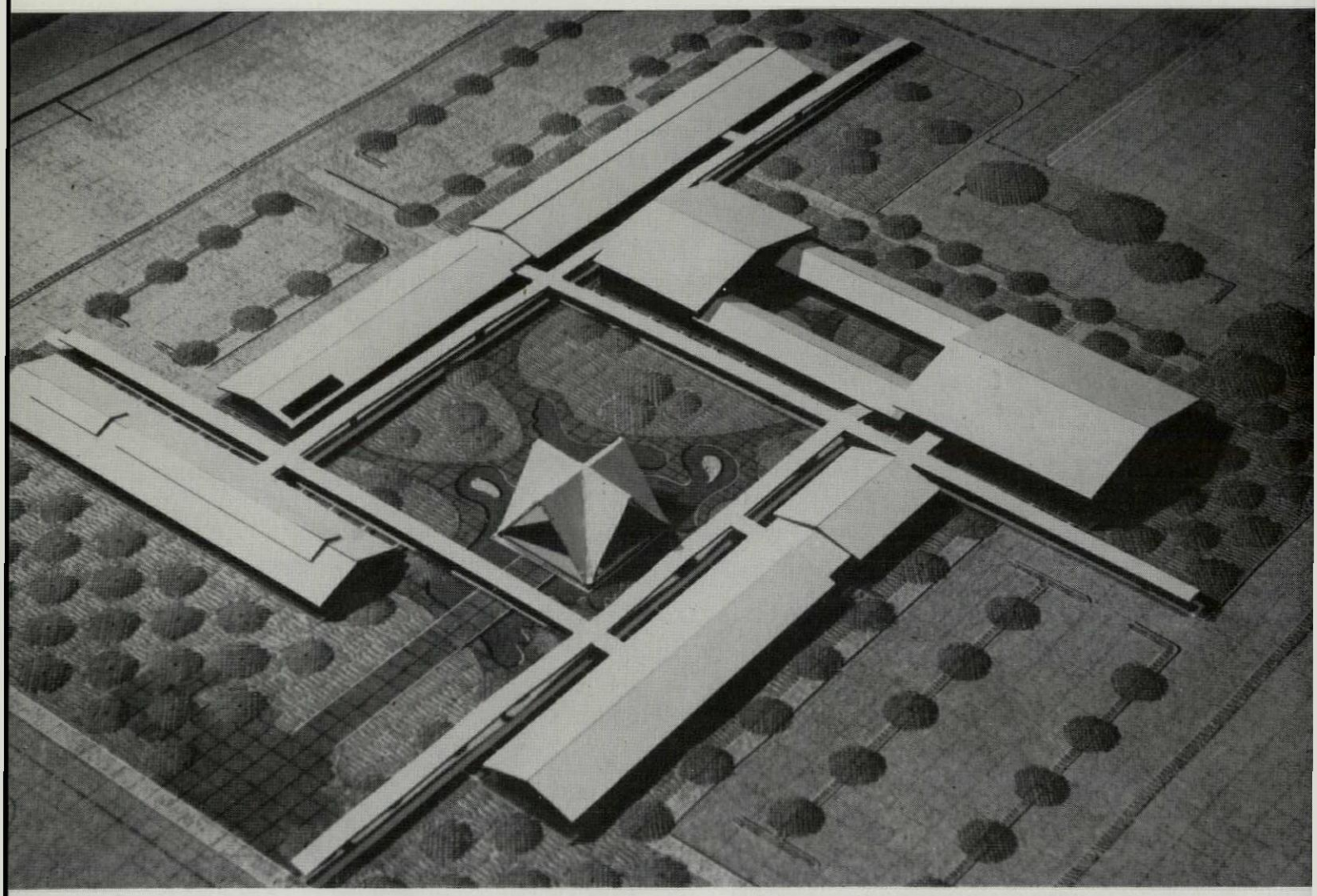
(*See* INTERIOR DESIGN DATA.)

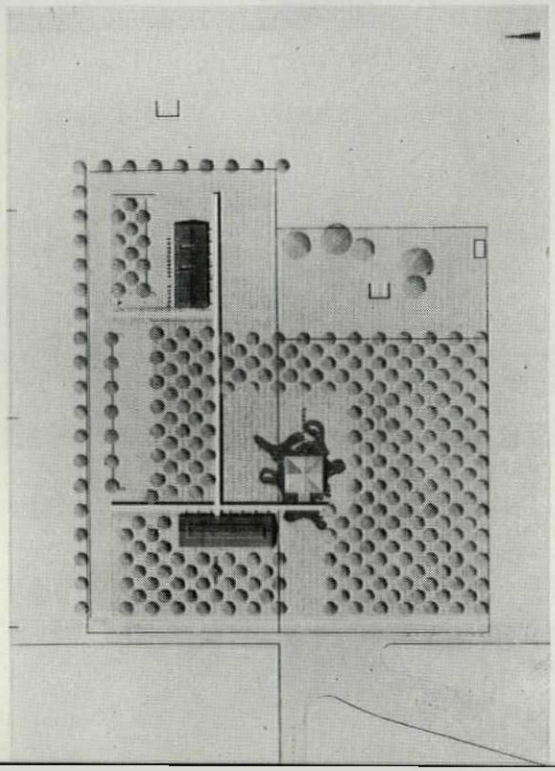



2-6 years
ramp
ramp
admin.
parking
play
7-10 years
kitchen
girls
boys
classrooms
commons
272
play
play
268
11-16 years
280
276
0
100 feet

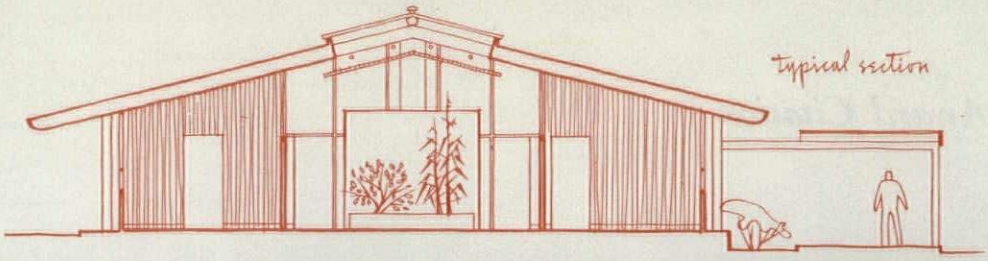

TULPENDOCHN STREET

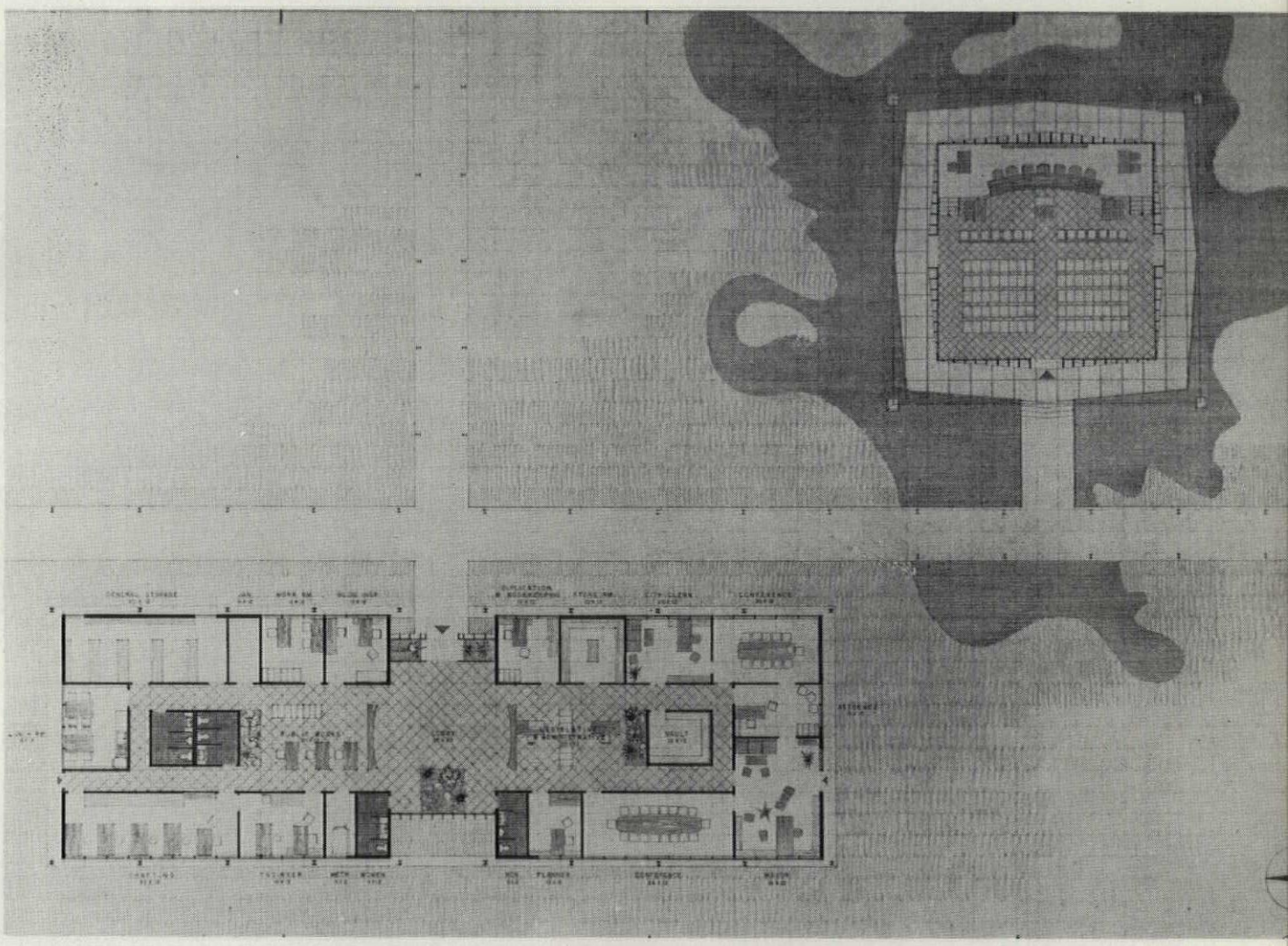
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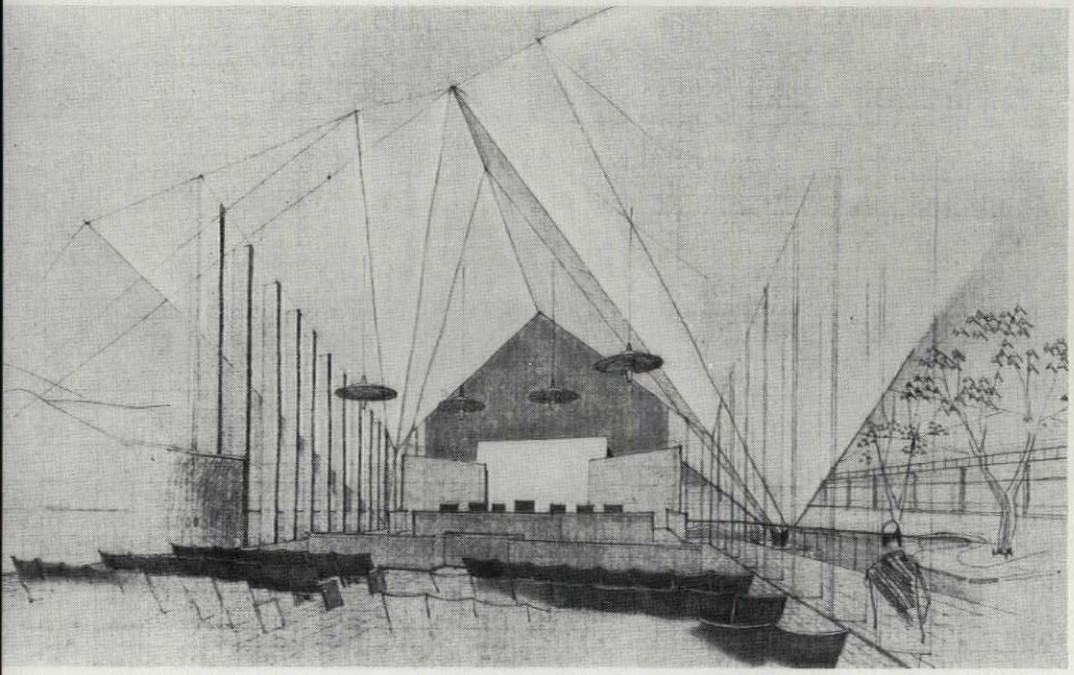




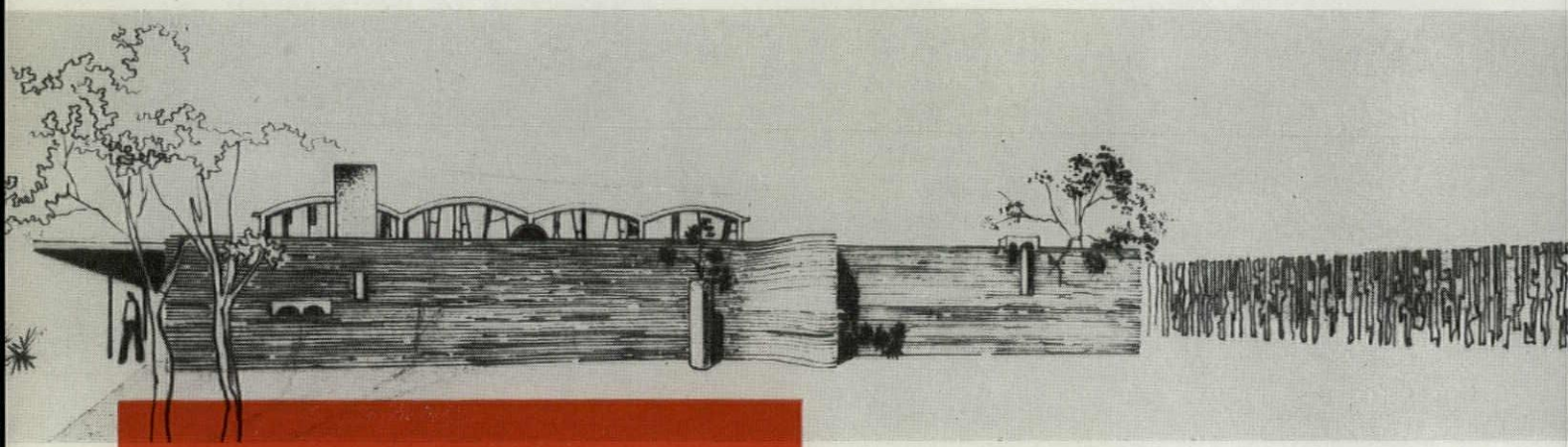
Civic Center for City of Los Altos, California: The Office of Ernest J. Kump, Architects; John Worsley, Architect-in-Charge; Arthur Sweetser, Chief Designer. "First stage in the development of this civic center will be the construction of three buildings (*plan left*): police building, city hall, and city council building. When fully developed (*rendering above*) the group will also include a community center, library, youth center, and an art center. "The philosophical basis for the design was to establish a town square after the fashion of the traditional New England community," write the architects, "which would be a focus for all civic and community activities." The site, a ten-acre apricot orchard to be partially preserved, will offer access on all four sides for pedestrians as well as automobiles. Focal point of the proposed building group is the city council building, recognizable by its distinctive roof shape and its prominent setting in the center of a pool within the public square. Its structural frame will be of steel, supported on four free-standing piers. North and south sides of the council chamber (*plan* and *interior sketch acrosspage*) are to be glazed, east and west walls finished with dark-stained redwood. Mullions along these side walls are designed to increase in depth as they grow longer. In contrast to this vertical structure all others are to be one-story high. The city hall (*section* and *plan acrosspage*) with a central sky-lighted public area, has been planned for complete flexibility using a structure which is independent of enclosing walls and partitions.

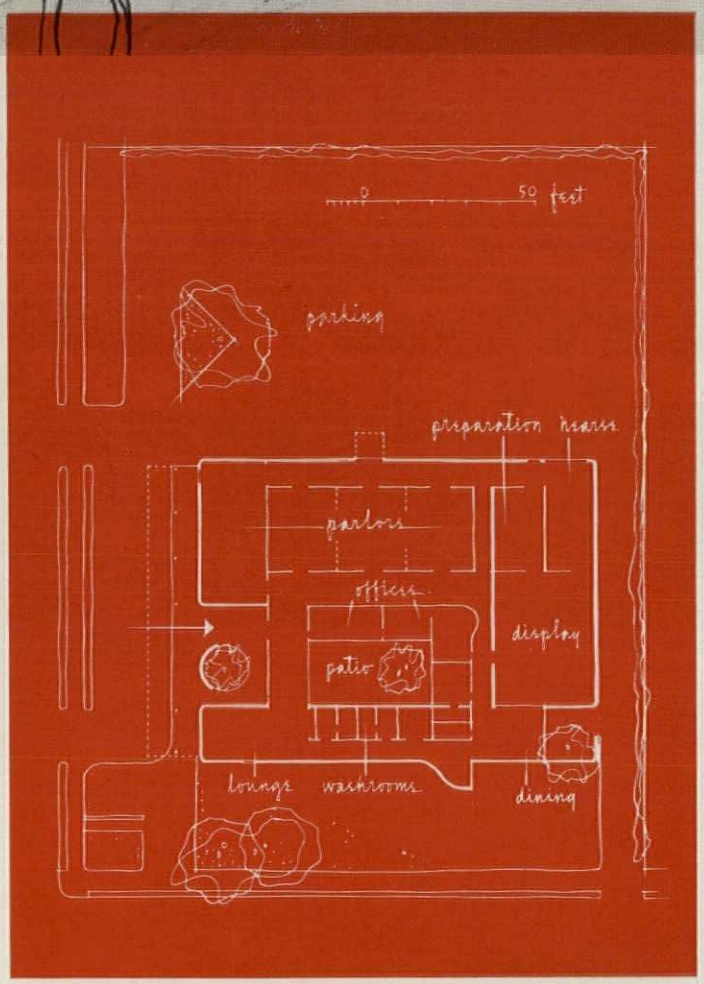

Typical section





public use: *Award Citation*



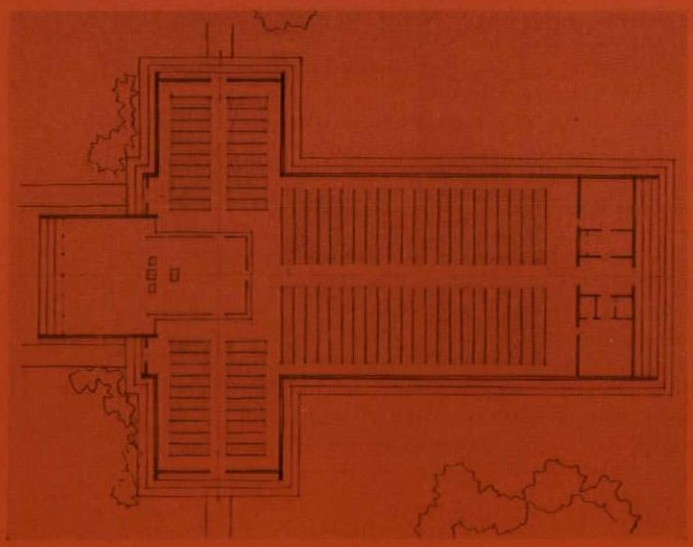


Mortuary for A. E. Briede & Son, Inc., New Orleans, Louisiana: Lawrence, Saunders & Calongne, Architects; John W. Lawrence, Partner-in-Charge. "Unlike most similar establishments in other parts of the country," write the architects, "a chapel was not part of this program. The tradition is well ingrained in the New Orleans population to use the family church rather than a mortuary chapel. The main problem was one of circulation—the separation of the public from behind-the-scenes operations." The public will enter the building at one point only, passing into an office-controlled lobby which opens toward an interior patio. A room for the display of caskets and the sale of shrouds, a hearse garage, and preparation spaces, to be grouped as a unit, will serve four parlors through a private corridor in the rear. Construction will be primarily of laminated wood with brick-masonry exterior.

religion: *Award Citation*

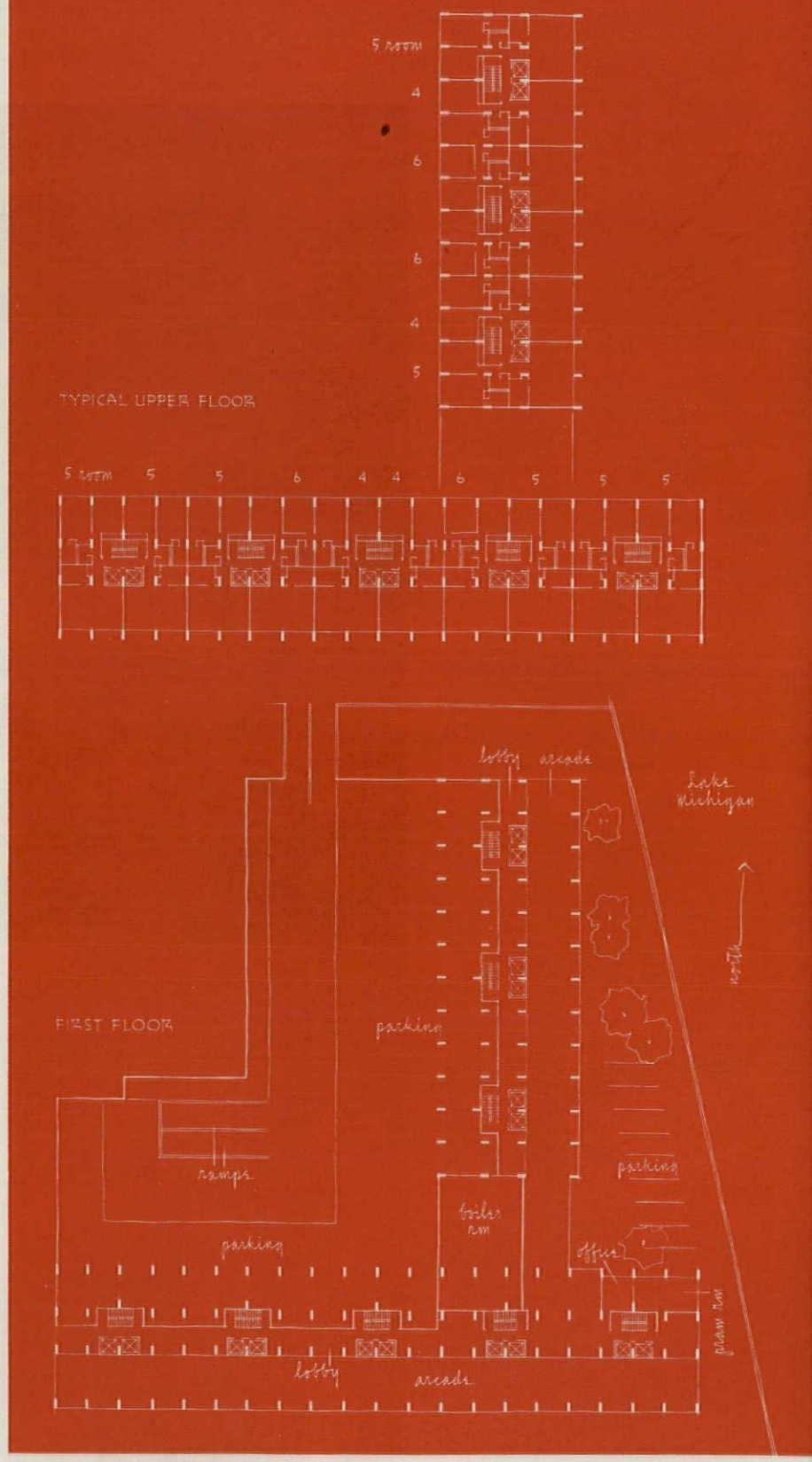
Methodist Church for the Mississippi Conference of the Methodist Church, Biloxi, Mississippi: Sidney Sharpe Stanfield & Associates, Architects. This church is only one part of the 40-acre redevelopment of a former beach resort along the Mississippi Gulf Coast. Present plans call for the early construction of a motel and restaurant with facilities for meetings and conferences of the Seashore Methodist Assembly, which initiated the program.





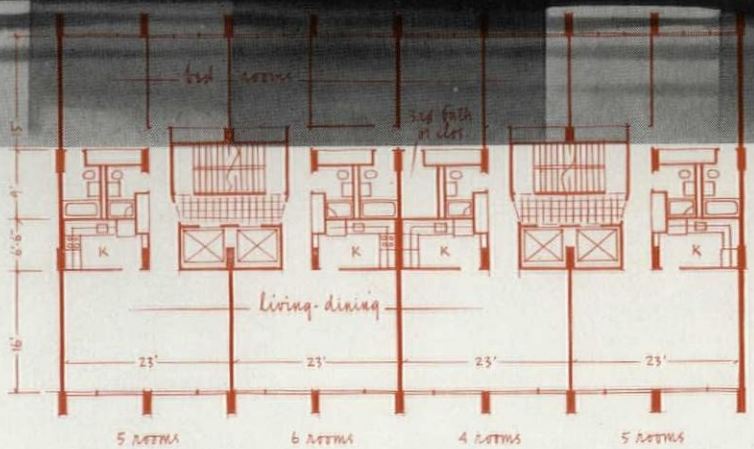
A later step will be the construction of a church. Shaped like a cross, the building will seat approximately 1000 persons. During the winter months, when attendance drops to 125, most of the seating can be completely closed off. The building will be air conditioned, and construction will be of reinforced concrete.

residential: *Award Citation*



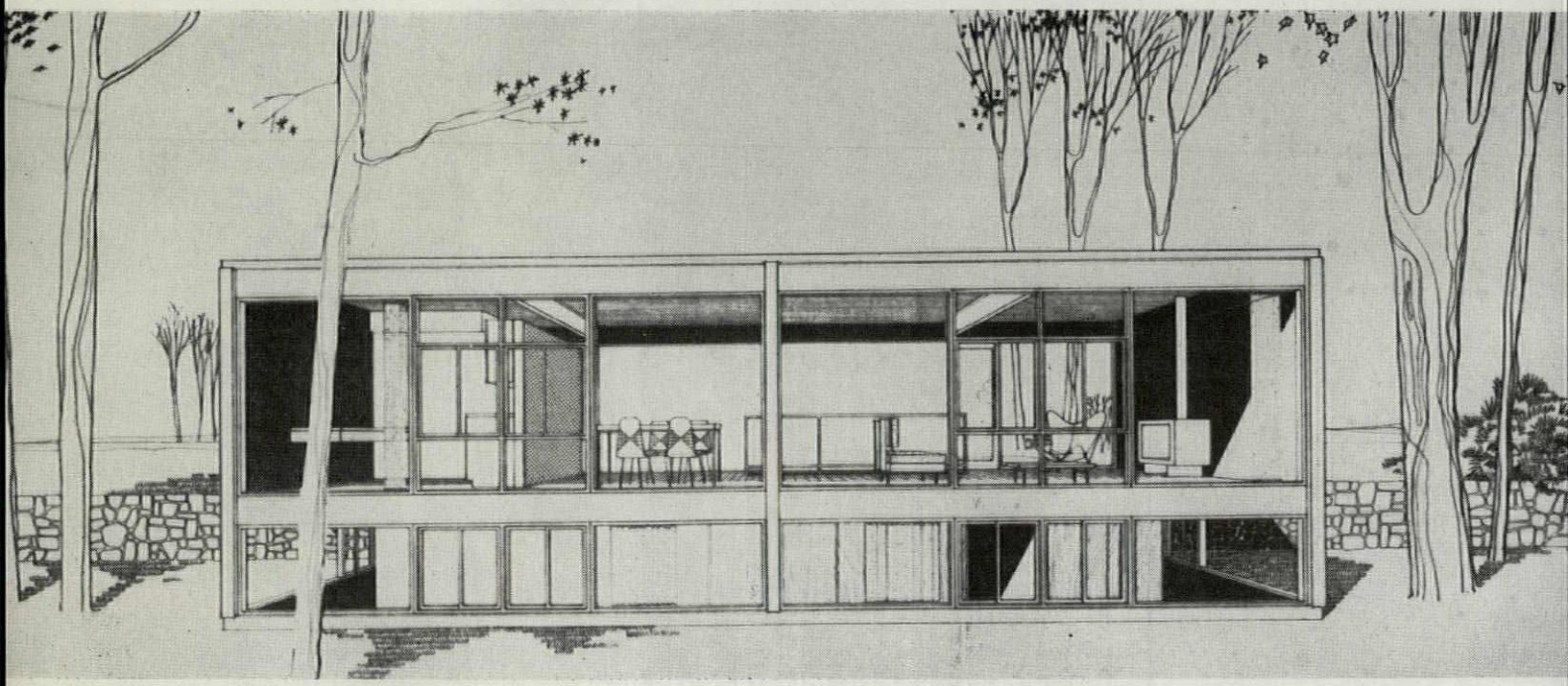
Columbia & Pratt Apartment Building for Henry Kyatt, Chicago, Illinois: Hausner & Macsai, Architects-Engineers; K. Krauski, Associate; Paul Rogers & Associates, Structural Engineers; William Goodman, Mechanical Engineer. This 31-story building contains 472 four- five- and six-room apartments. Stacks of two apartments on each floor will be serviced by one freight and one passenger elevator, thus eliminating long halls and insuring a greater degree of privacy for the tenants. Because of this arrangement it was also possible to give all apartments two exposures, cross ventilation, and views of Lake Michigan. Bathrooms and kitchens will be grouped around utility cores, and the number of bedrooms per apartment may be allocated according to requirements. Construction will be of reinforced concrete. Columns and flat slabs are to project on both sides to give sun and rain protection, and to break the upward velocity of lake winds. Diaphragm walls at 46-ft intervals will counteract wind loads. Heat will be provided by convectors located below the sills, and air-conditioning units in each room are to be set into precast spandrel walls. The Jury commended the excellence of the individual apartment plans as well as the arrangement of public spaces.



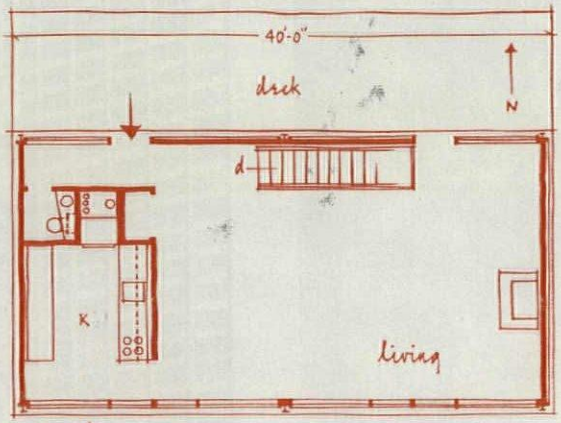


TYPICAL APARTMENT UNITS

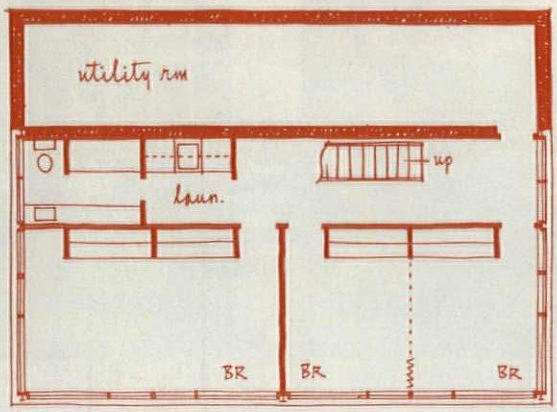
residential: *Award Citations*



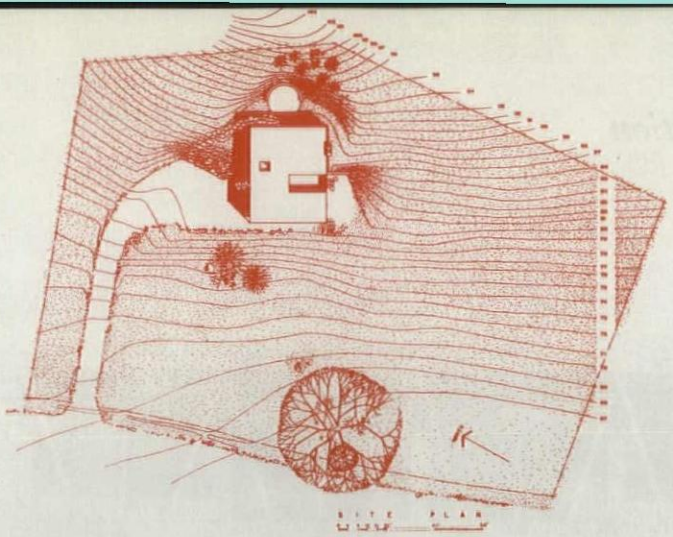
House, Minneapolis, Minnesota: Bruce Abrahamson, Architect. This house was designed for a family of four. "The solution," writes the architect, "was prompted by the slope of the lot, which drops 30 ft, and by the desire to lift the living space onto a platform to take full advantage of the view." Thus the upper floor will be devoted to living space while the lower floor, partially below grade, will contain sleeping and dressing areas. Heater, well, pump, and bulk storage are planned for a space adjacent to the house proper. The roof over this area will form a terrace for the upper level. For economy sake the house is to be built of standard materials using simple architectural details. The structural frame will be of steel, left exposed. Wood joists will frame into steel channels and the roof is to be a wood deck. Privacy and sun protection will be offered by existing trees.



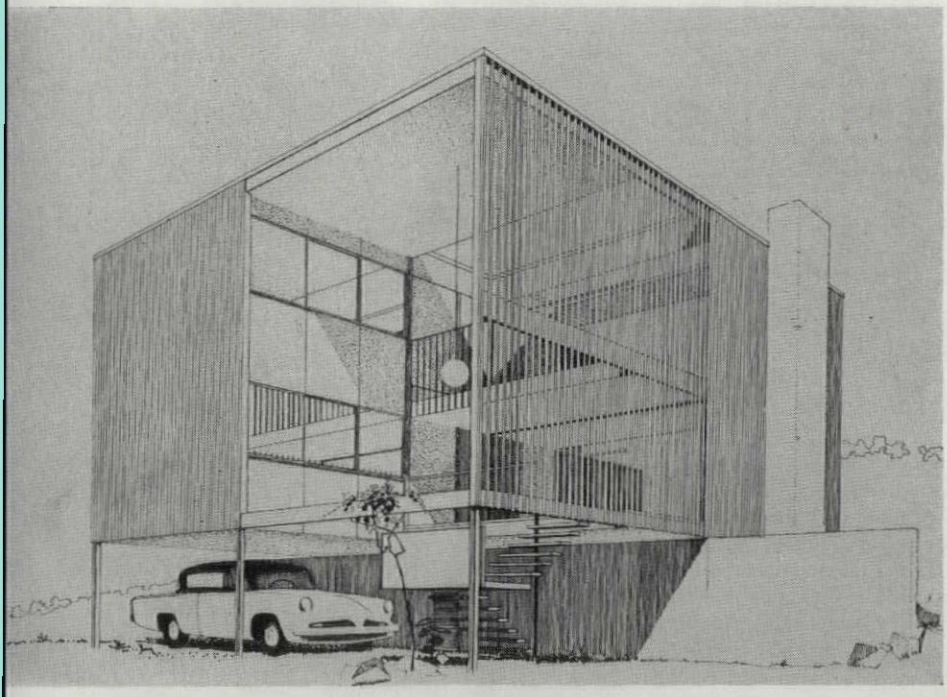
upper floor

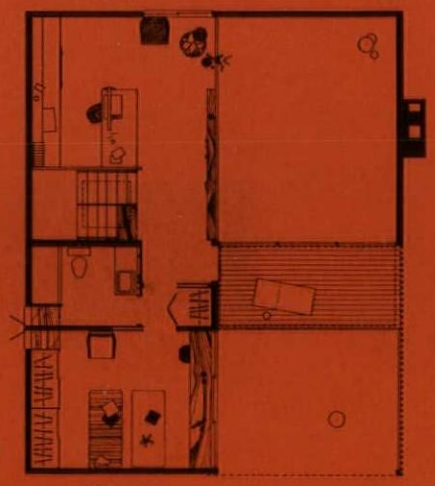


lower floor



House, Farmington, Michigan: Tivadar Balogh, Architect. For the architect's own use, this house is to provide space for working and the entertaining of small groups. "The house must have qualities of openness and spaciousness," says the architect, "but must still maintain adequate privacy of the various spaces." Site is the western slope of a hill; the solution—a three-story house. Service entrance, laundry, workshop, heater space, and storage are to be on the first level; living room, dining space, kitchen, master bedroom, and bath on the second; bedroom, bath, and study-work space on the third. Careful study of the vertical interrelationship of levels has resulted in an interesting sequence of architectural spaces. Construction will be wood frame, vertical cedar siding for exterior, plaster and wood paneling for interior, ceramic tiles for floors. Heating will be by forced warm air.

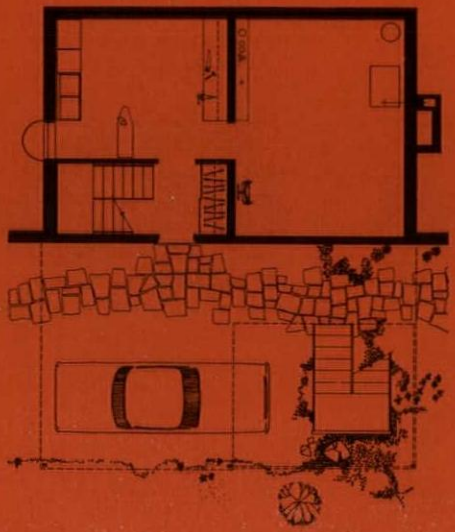




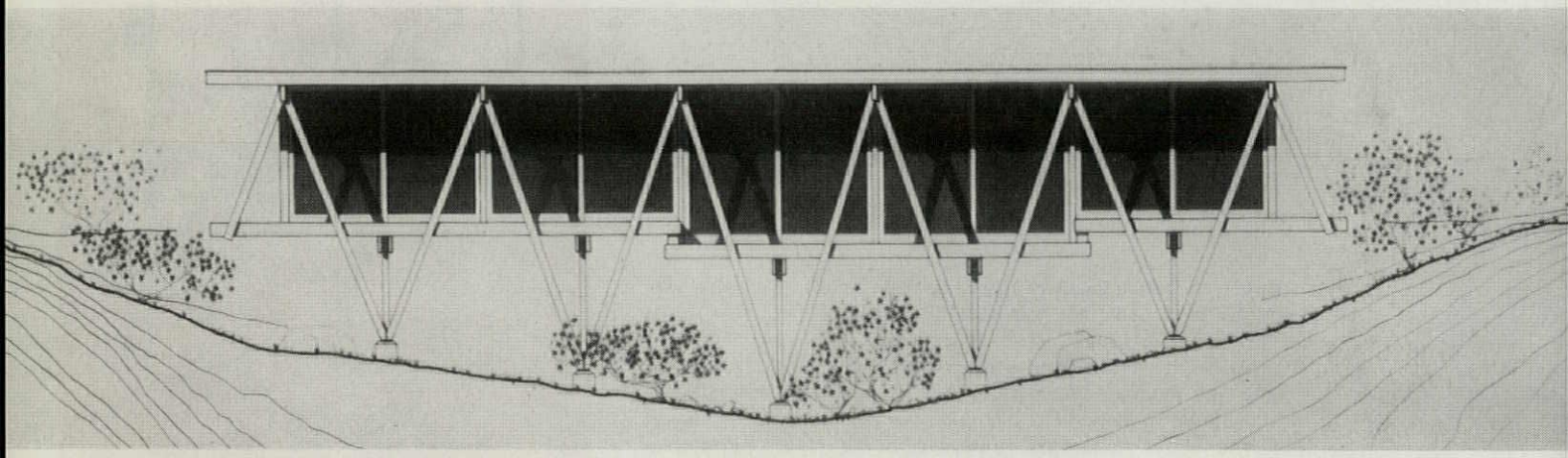
second floor

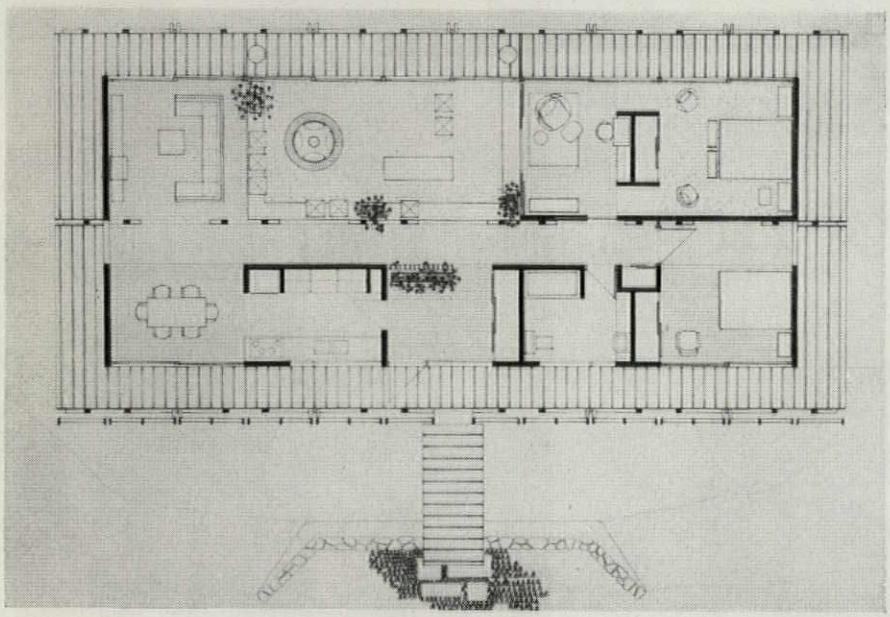


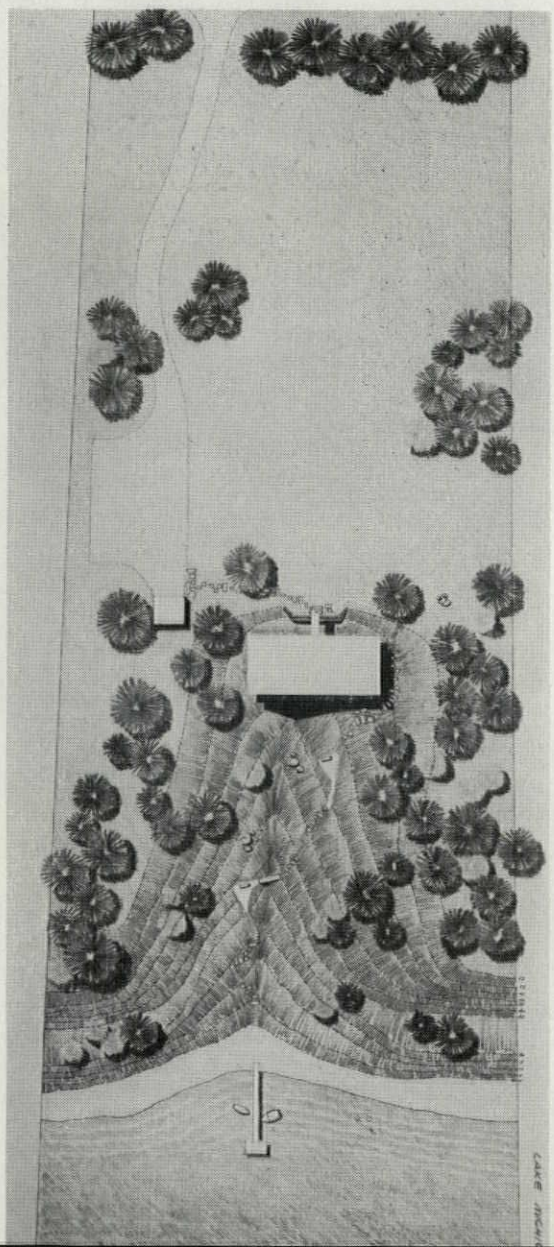
first floor



basement 0 10 feet

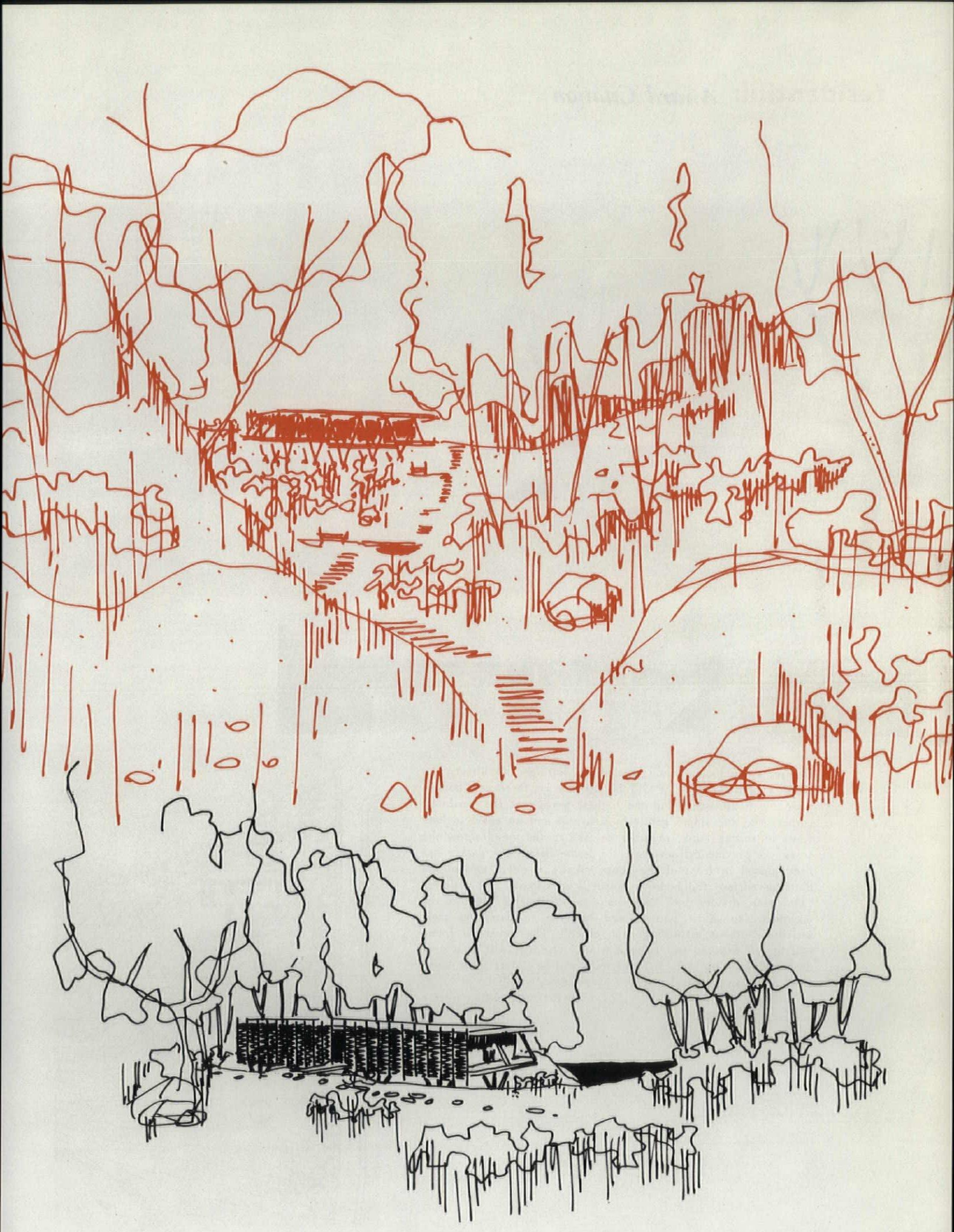




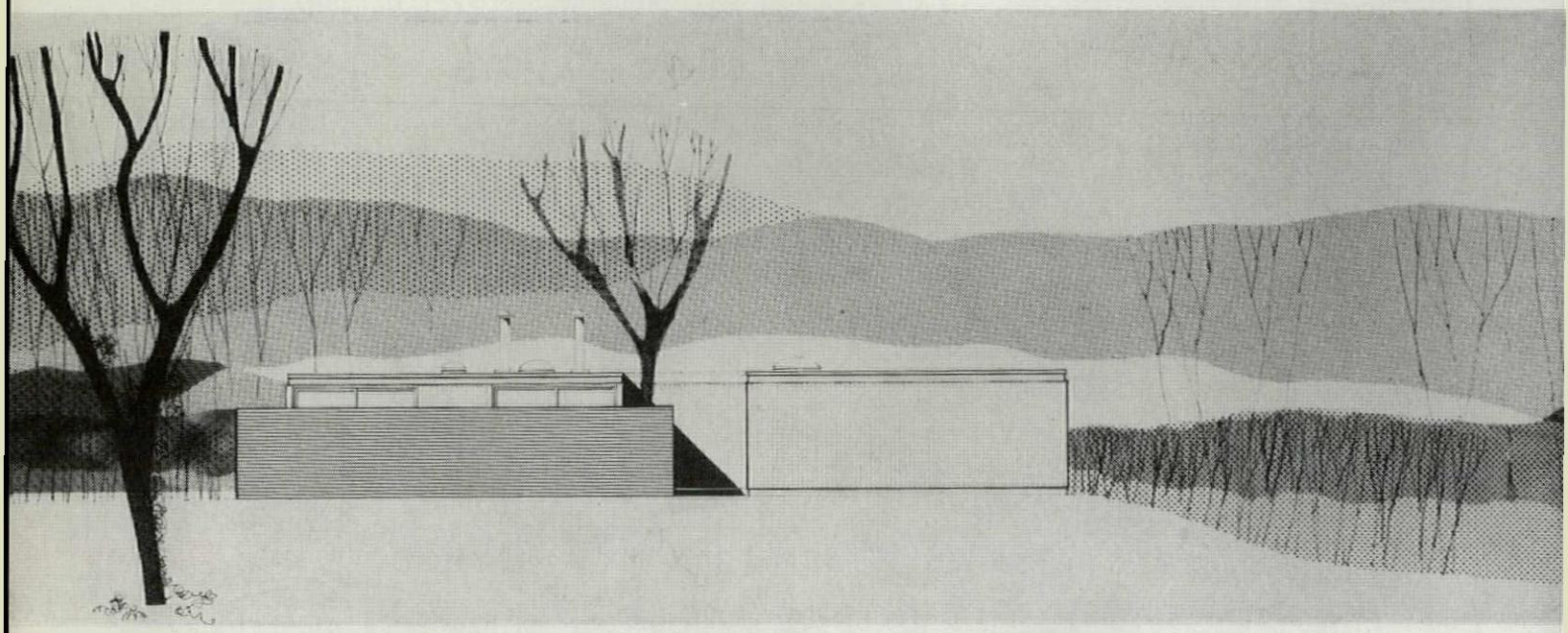


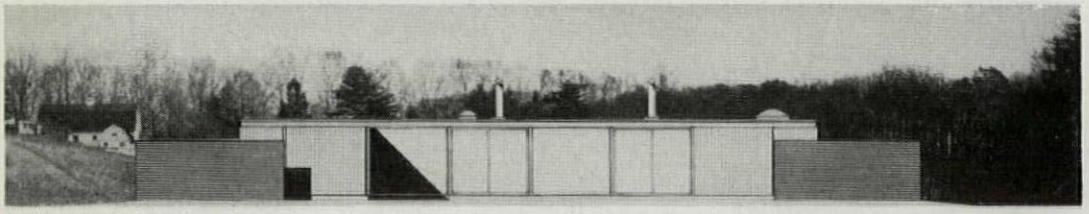
Vacation House, Mequon, Wisconsin; Gunnar Birkerts, Designer. A beautiful, wooded ravine bordering Lake Michigan is the outstanding feature of this site. To preserve the terrain the building has been raised above the ground to span the ravine. Access to the house is via bridge. Special requirements of the owners were: the inclusion of a study in conjunction with the master bedroom, a room for frequent guests, and a spacious living area for informal summer entertaining. Sacrificing orientation for outlook most of the rooms were designed to face the lake, and the superb view from the 60 ft-high cliff will be captured through glazed sliding doors. The structure is to be of wood, with bolted beam and column connections. Floors and roof will be of wood-joist construction. Provision will be made to insulate more thoroughly so that this summer house, within commuting distance of the city, can be converted into a year-round residence.

(*See* INTERIOR DESIGN DATA.)



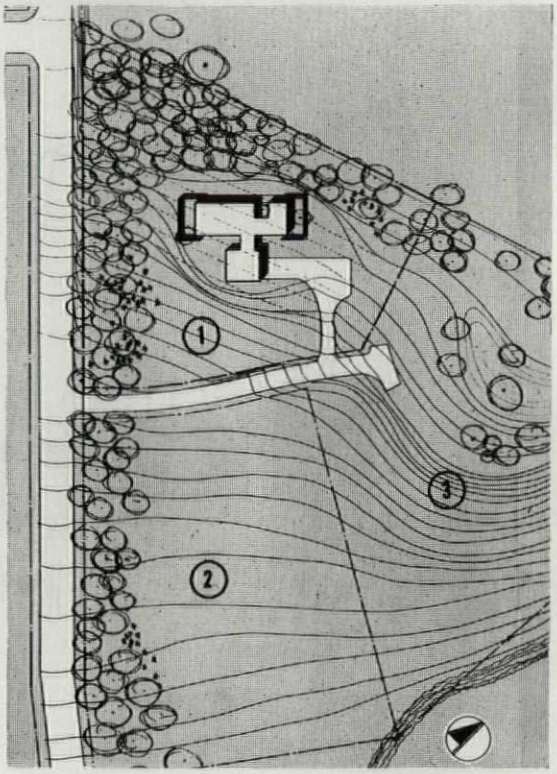
residential: *Award Citation*

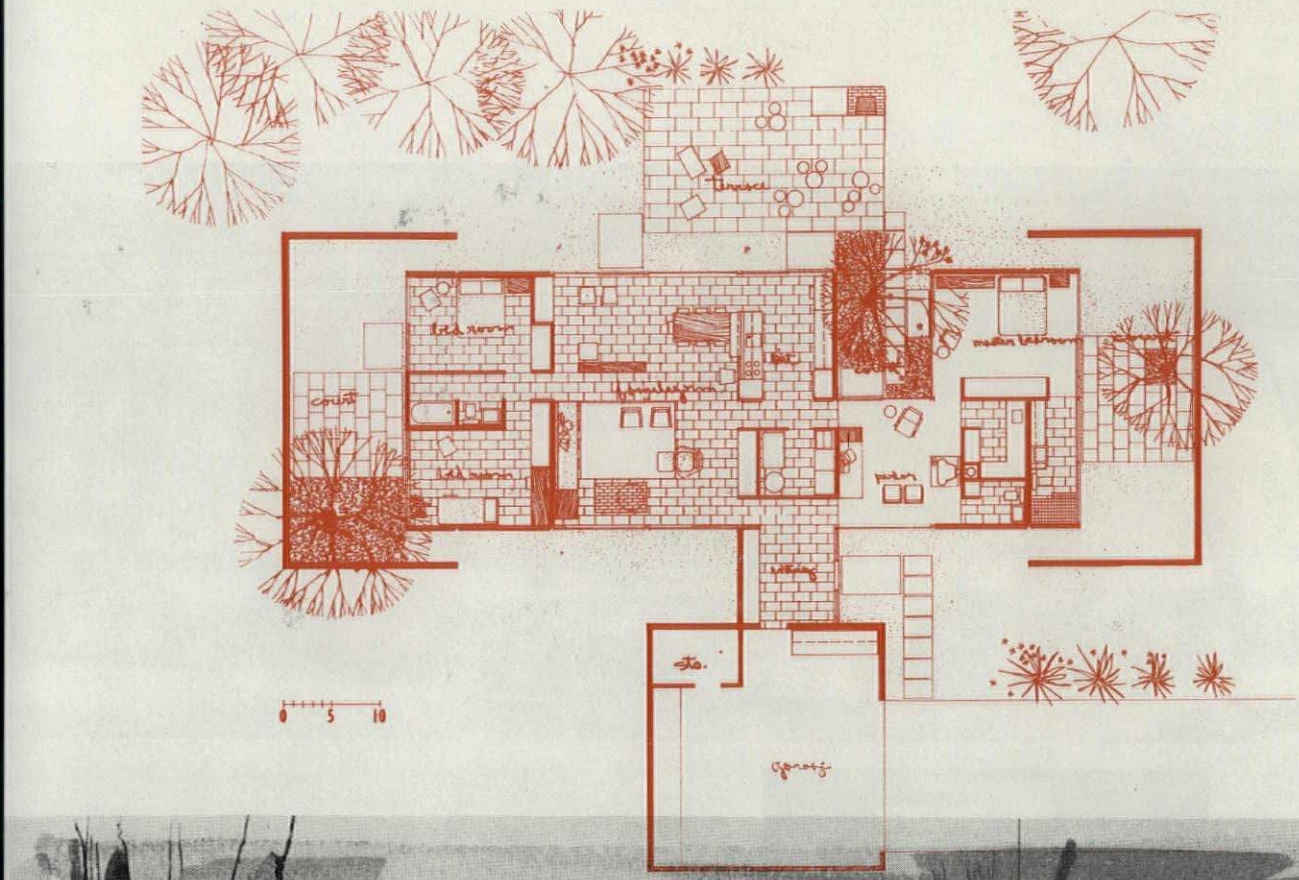


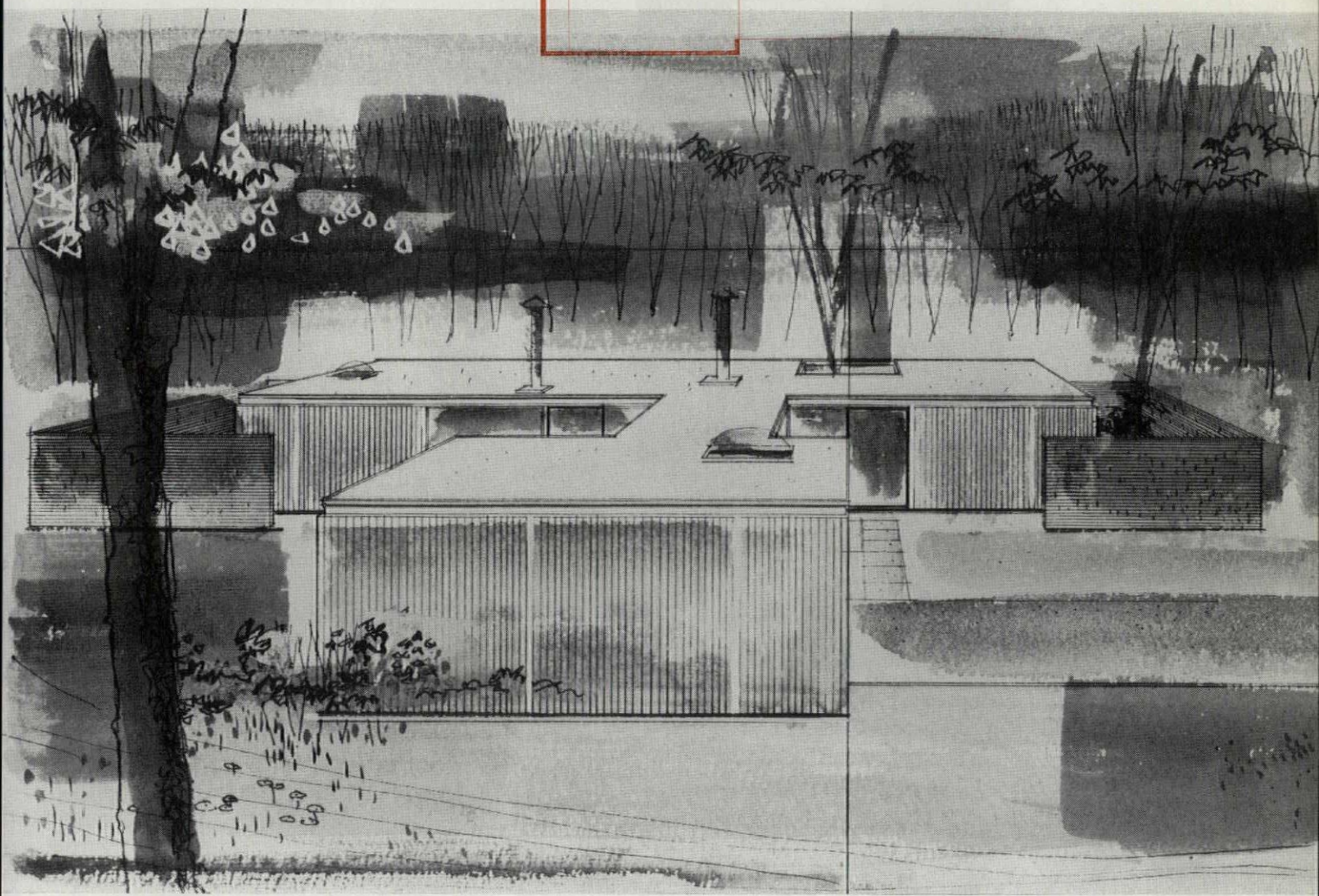


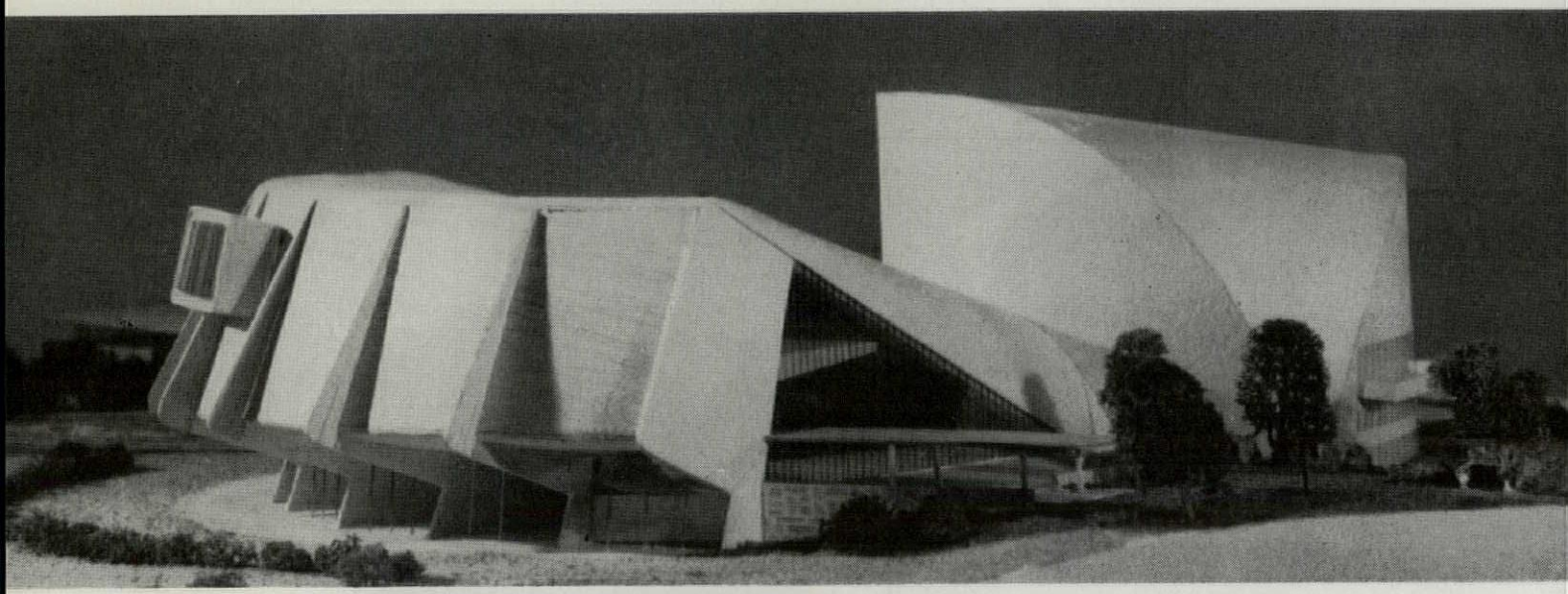
House, Paoli, Pennsylvania: Richard E. Baringer, Architect. The meadow of a large estate will be the site for three new houses, with this house occupying the highest portion at the northwest corner. The site slopes gently to a stream and up again to long views of rolling land. In order to take in the views across the creek yet provide privacy from the house below, the garage has been placed in front of the house. Walls at either end of the building enclose the bedroom gardens of parents and children. "The plan divides into two complete apartments," writes the architect, "to allow parents and children to carry on their activities without disturbing each other." The structural frame will be left exposed and painted white. The roof will be a steel deck with built-up roof. Exterior walls will be sliding glass doors, fixed glass, and vertical cedar. Courtyard walls will be of brick.

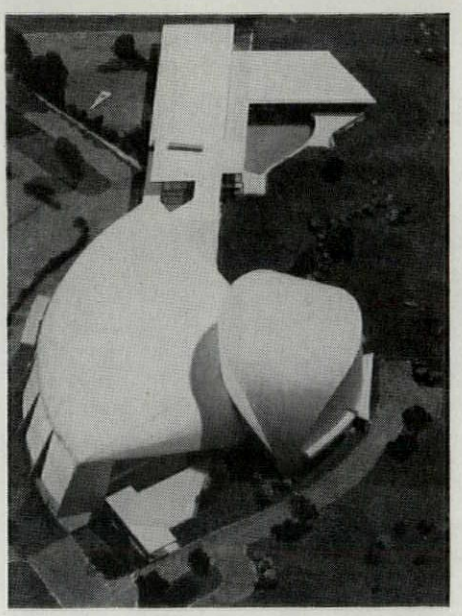
(*See* INTERIOR DESIGN DATA.)

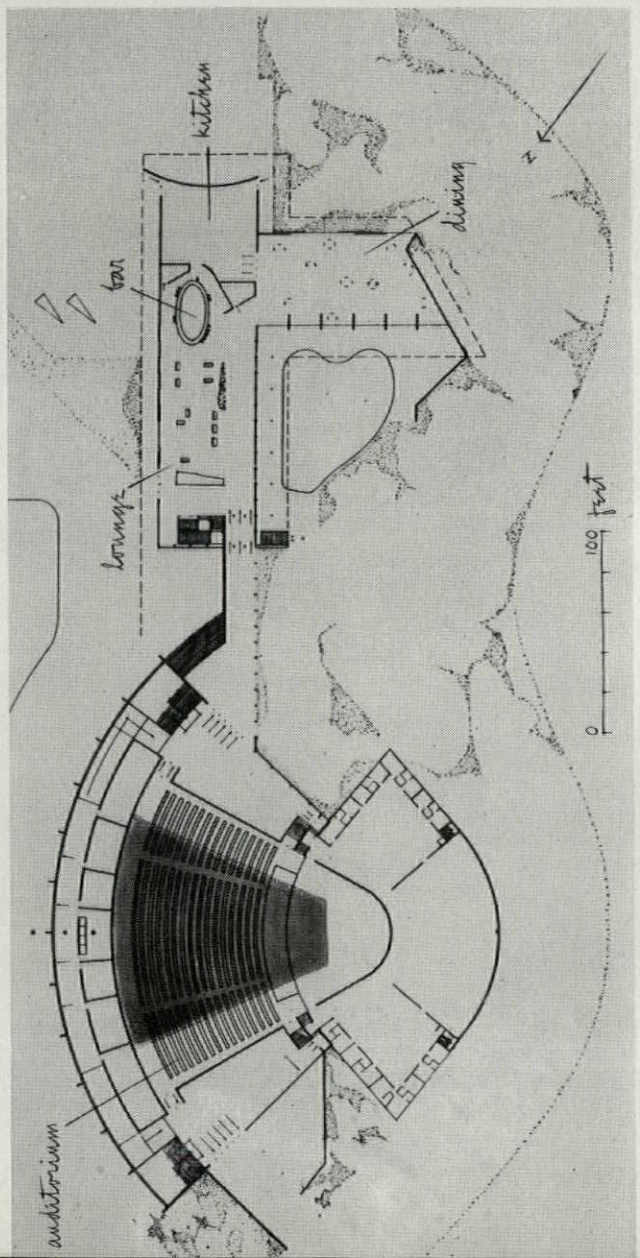



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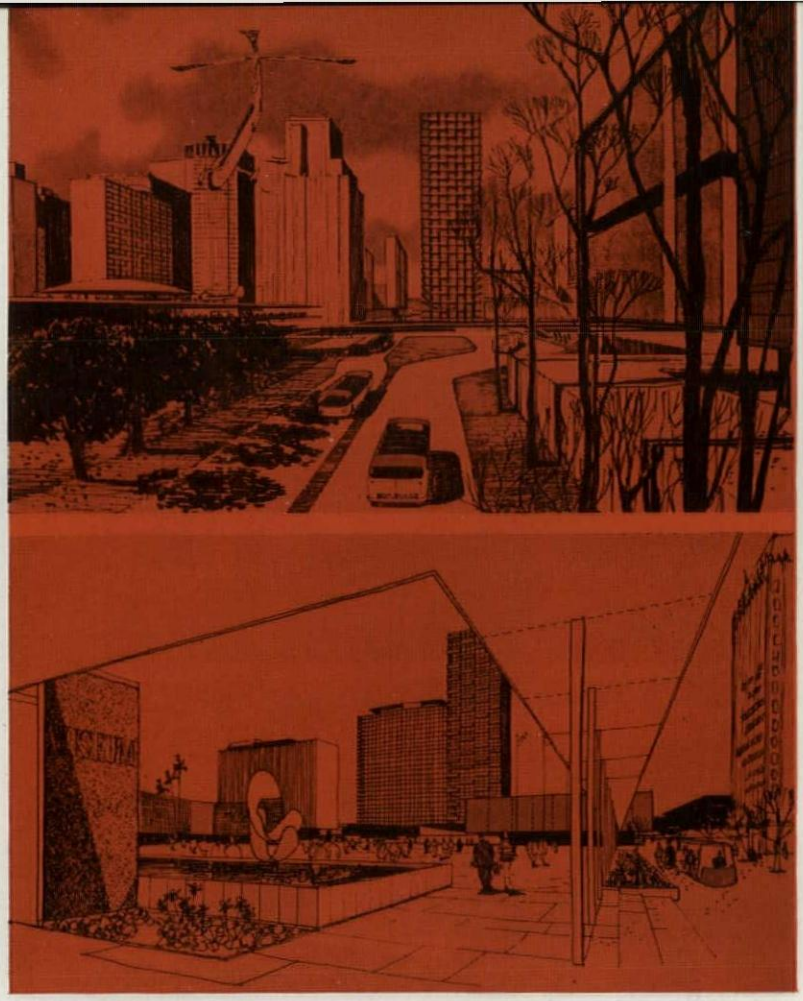


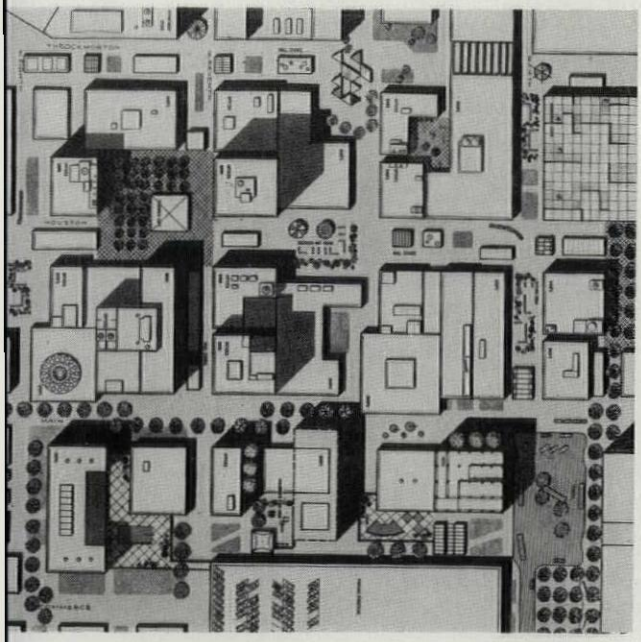




Opera House, Colorado Springs, Colorado: A. G. Jan Ruhtenberg, Architect; Robert Koons, Structural Engineer. A ridge on the edge of the Mesa—a flat, slightly rolling countryside—will be the site for this opera house. The building is designed for 3000 spectators, but seating capacity may be reduced to 1000, (*shaded area on plan*), for legitimate theatrical performances. This flexibility in seating arrangement will be achieved by two motor-operated walls rising vertically from underground storage. The basic structure will be of reinforced concrete employing a frame-and-shell system for auditorium and stage area, a flat-plate system for the restaurant wing.

planning: *Award Citation*



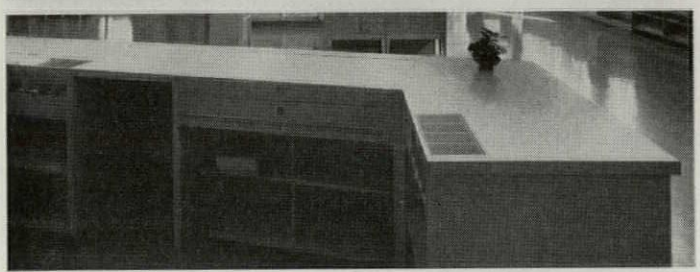


Downtown Redevelopment for Greater Fort Worth Planning Committee, Fort Worth, Texas: Victor Gruen & Associates, Architects; Edgardo Contini, Partner-in-Charge; Ben Southland, Chief-of-Planning. "The spirit of the solution," write the architects, "is comprehensive in nature and attempts to solve the basic problem common to all of our central districts, namely, the return of the central core to the function of concentrated urban activity to which it is entitled because of its superior central location and its civic significance." The plan, which takes into account the growth of the city over the next 25 years, proposes the following: 1. the banning of automobile and truck traffic from the central core; 2. the transformation of streets into landscaped park areas; 3. a system of primary and secondary roadways connecting with a loop road encircling the core; 4. parking garages at intervals along the loop road from which the center of the core can be reached within 2½ minutes walking time; 5. an underground traffic system for trucks and services.

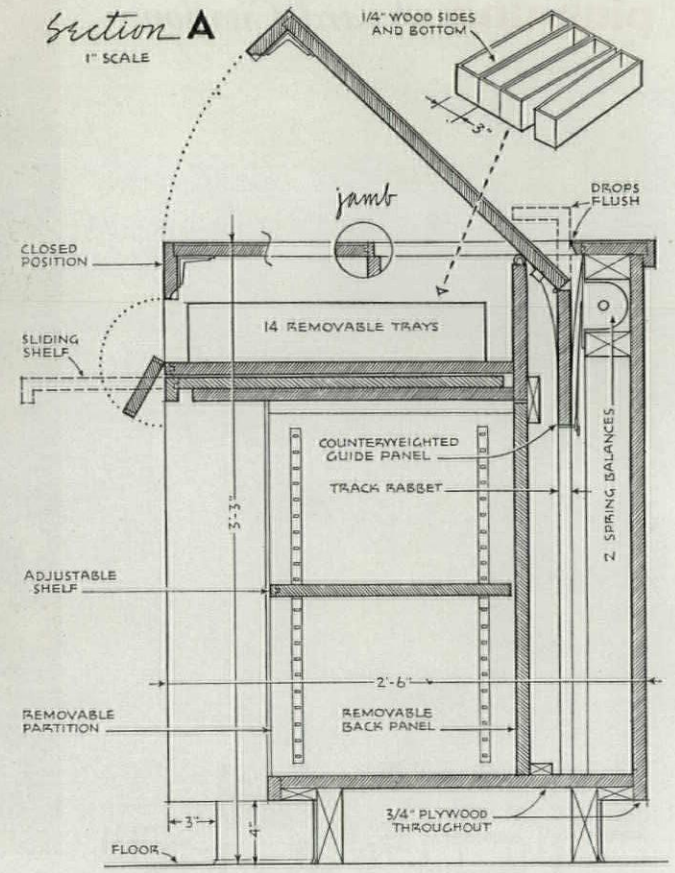


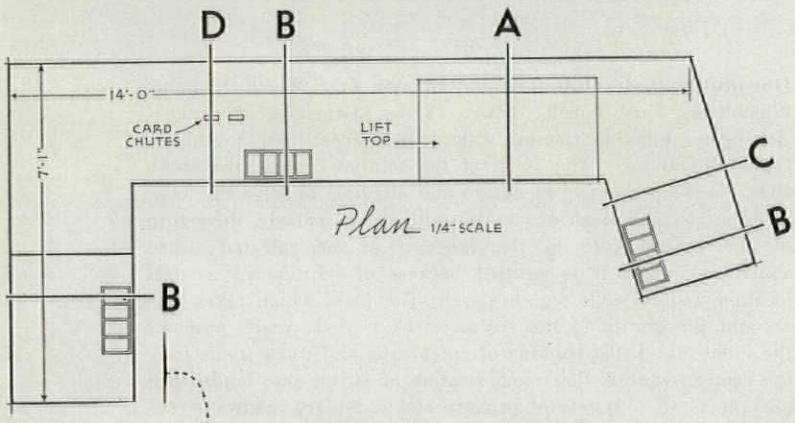
charging desk

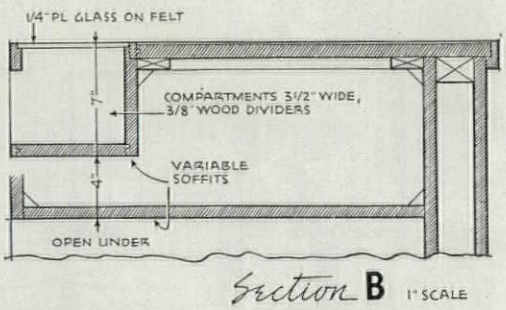


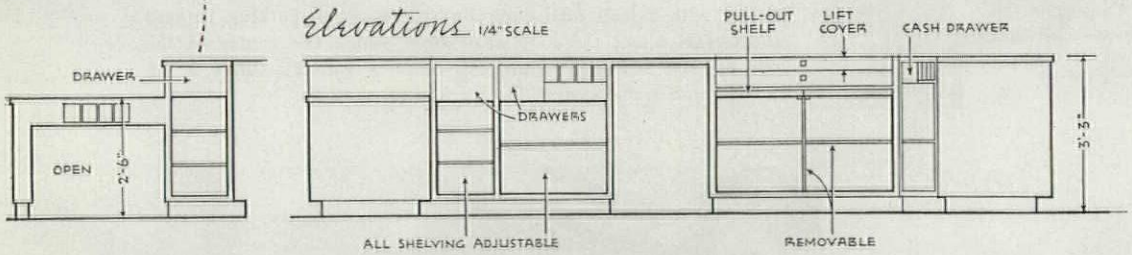


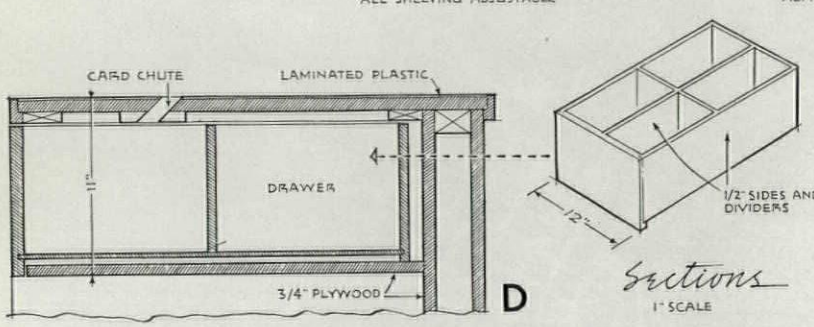
DEARBORN-MASSAR

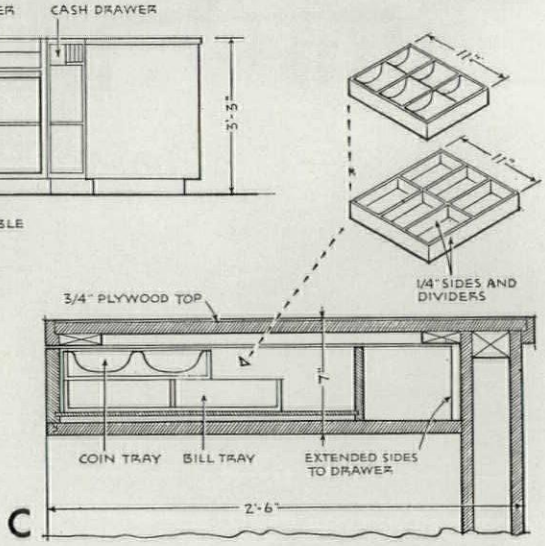








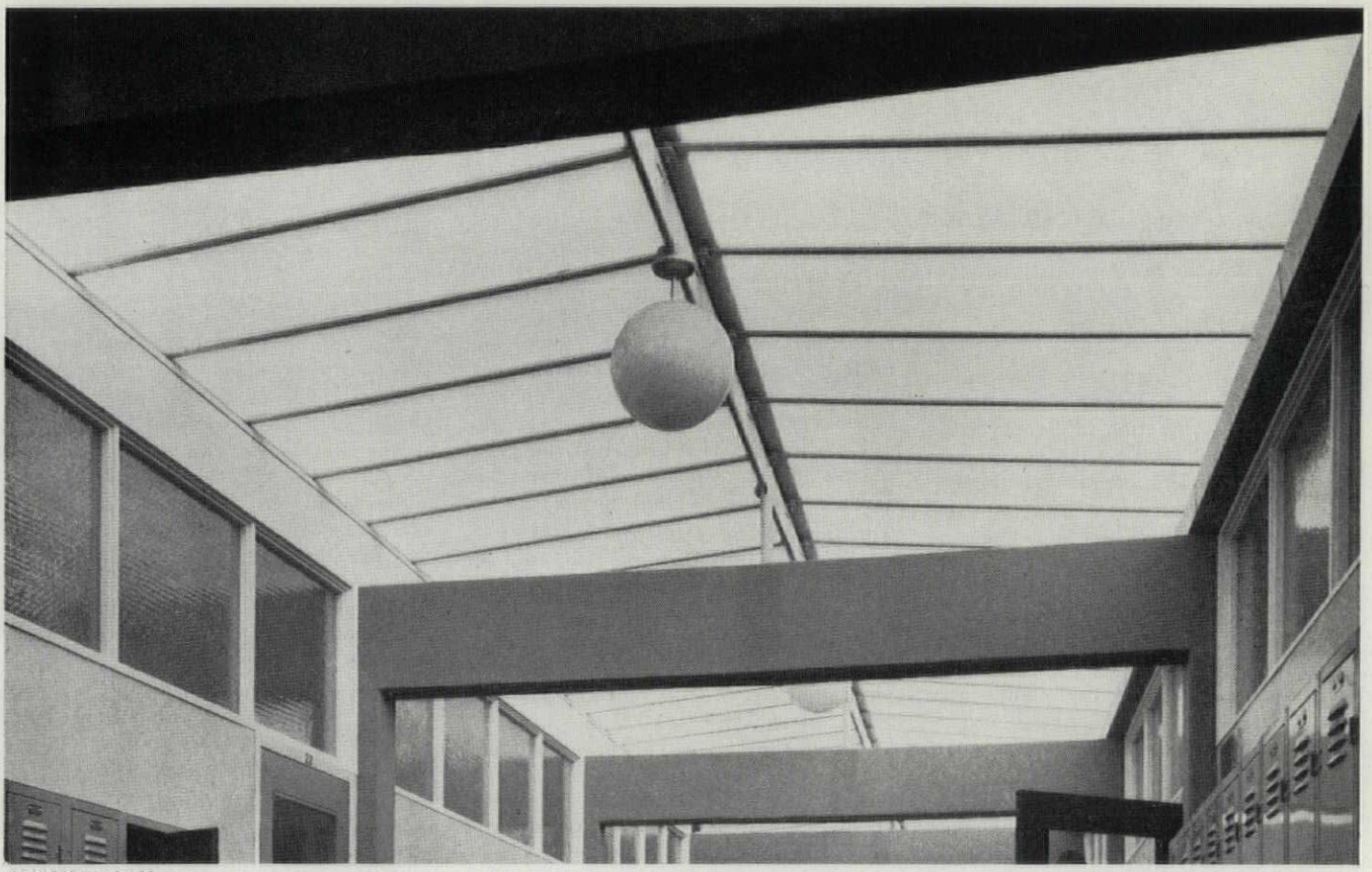




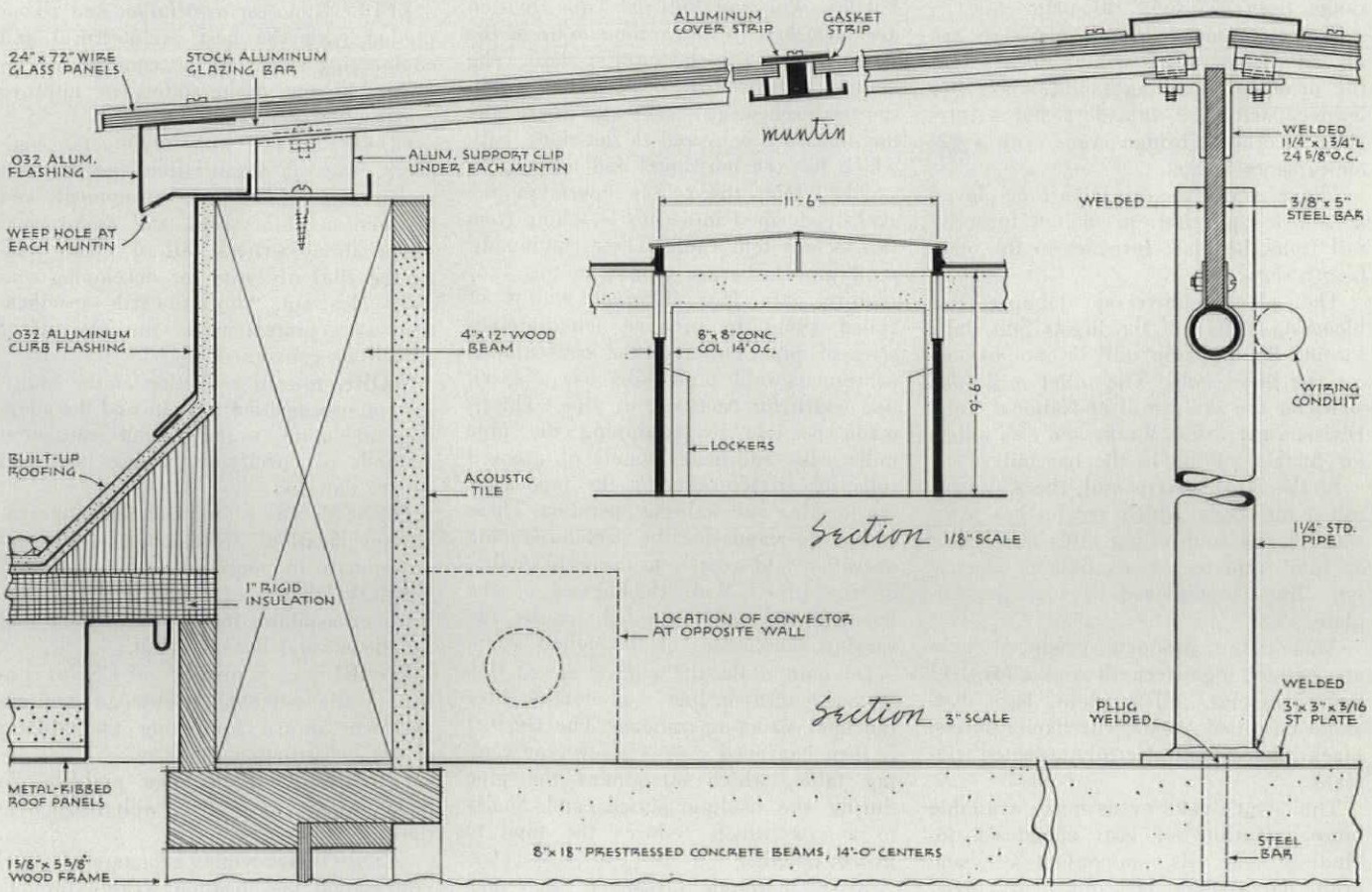
LIBRARY, Seattle, Wash.

Naramore, Bain, Brady & Johanson, Architects-Engineers

skylight



DEARBORN-MASSAR



ELEMENTARY SCHOOL, Tacoma, Wash.

Robert Billsbrough Price, Architect

by Ben John Small

USS

Thought it was high time for me to inspect the Fairless Works of the United States Steel Corporation in Pennsylvania to see how they were getting along without my advice. The answer was—fine!

USS has constructed and operates facilities for handling and stocking shipments of steelmaking raw materials, principally iron ore, coal, and limestone; 174 by-product coke ovens; two blast furnaces with a combined annual capacity of about 1,200,000 tons of pig iron, which is used in the plant's nine open hearth furnaces to furnish an annual capacity of 2,200,000 tons of steel; a combination slabbing and blooming mill and auxiliary facilities; an 80″-hot-strip mill and hot-rolled sheet-finishing facilities; rolling and finishing facilities for cold-reduced sheets and tin-plates; a billet mill; and a bar mill with a size range from ⅜″ to 2″ diameter.

Water shipments of raw materials are unloaded at a 1000 foot long dock where the principal handling facilities are two large-capacity ore unloaders and a traveling, overhead, bridge crane with a 22-ton-capacity bucket.

Thermos-type mixer cars are employed to transfer pig iron in molten form by rail from the blast furnaces to the open hearth shop.

The plant's universal slabbing and blooming mills roll the ingots into slabs for the 80″-hot-strip mill or into blooms for the billet mill. The billet mill rolls slabs for the skelp mill of National Tube Division at Fairless Works and also billets for further rolling in the bar mill.

In the 80″-hot-strip mill, the slabs are rolled into coils, which are further processed in the cold-rolling mills into sheets or into tinplate. A continuous electrolytic line is employed to coat the tinplate.

Among the products produced here are carbon high-strength and alloy-steel ingots, blooms, billets, slabs, bars, hot- and cold-rolled sheets, vitrenamel sheets, black plate, and electrolytic-coated tinplate.

The plant's coke ovens make available large quantities of coal chemicals, including light oils, ammonium sulphate, crude naphthalene, tar, and many others. Requirements for these products are numerous in the industrial areas of New England, New York, New Jersey, and Eastern Pennsylvania. The annual capacity of the USS production units at Fairless Works is 289,000 tons of cold-rolled sheets; 235,000 tons of hot-rolled sheets; 285,000 tons of bar products; and 170,000 tons of tin mill products.

National Tube Division, pipe-making facility of USS, operates facilities for producing standard pipe at its new Fairless Works. These include a skelp mill, two continuous-butt-weld pipe mills which produce 281,000 tons of ½″ to 4″ pipe annually, pipe-galvanizing facilities, and a warehouse of 30,000 tons capacity.

The various types of pipe manufactured are black and galvanized standard pipe and line pipe. This large expansion of pipe facilities will serve the natural area for distribution of standard pipe in the Middle Atlantic and New England markets. Steel requirements for the Fairless Works of National Tube Division are furnished by the rolling mills of the Fairless Works in the form of slabs. The actual manufacture of pipe starts in the slab-reheating furnaces, where the hot slabs are delivered to the skelp mill, which has ten horizontal and five edging stands. After the rolling operation, the skelp is formed into coils weighing from two to four tons each. These continuous-weld pipe mills are unique in that they require only four different widths of coiled skelp to produce ten different sizes of pipe; whereas the conventional continuous-weld pipe mills use a specified width for each size of pipe. This is made possible by equipping the pipe mills with additional stands of grooved rolls for stretch-reducing the pipe after the forming and welding operation. These additional stands for the stretch-reducing operation add greatly to the weld quality of the pipe. Wall thicknesses of the finished pipe are provided for by the varying thicknesses of the coiled skelp.

On both mills, the pipe is sawed into 42-foot lengths in line of production after the final sizing operations. The product is then conveyed over a screw-type cooling table, which straightens the pipe during the cooling period, and finally to a saw which reduces the pipe to 21-foot lengths.

After thorough inspection, the pipe proceeds to the galvanizing department or to other finishing departments.

The warehouse is 1400 feet long and 185 feet wide, having a capacity for an average stock of 30,000 tons of pipe. Larger sizes are stocked at the inlet end of the warehouse and smaller sizes at the outlet end. This permits larger sizes to be loaded in the bottom of railroad cars and smaller sizes on the top, as the cars progress through the warehouse.

In addition to the sizes being produced on the pipe mills, stocks of pipe are carried in other butt-weld sizes and in seamless sizes as well.

Know all about steel now?

CSI

The time has come to remind you to do something for specifications improvement by starting a Construction Specifications Institute Chapter in your area if you don't already have one. Remember, the goal of CSI is to . . .

EFFECT closest association and co-operation with the best architectural and engineering talent in the construction industry in the major effort to improve construction specifications.

CO-OPERATE with architects, engineers, research organizations, government authorities, contractors, equipment and material manufacturers, and professional specifications writers—all of whom realize the vital necessity for developing concise, clear-cut, down-to-earth specifications as a protection for the interests of all parties concerned.

WORK toward reduction of the multitude of specification formats and the adoption of more uniform and consistent methods of specifying, saving time and money thereby.

DISSEMINATE information concerning specifications, developments, and improvements in construction practices.

PROVIDE a pool of the best specification data available in the construction field for the mutual benefit of all.

ENABLE each member of CSI to contribute his personal knowledge and experience toward improving the welfare of the construction industry.

CONSIDER specification problems in their proper perspective, with relation to the project as a whole.

ASSIST in providing adequately trained professional specification writers through the adoption of proper curriculums in professional schools.

Louise Sloane

award citation interiors

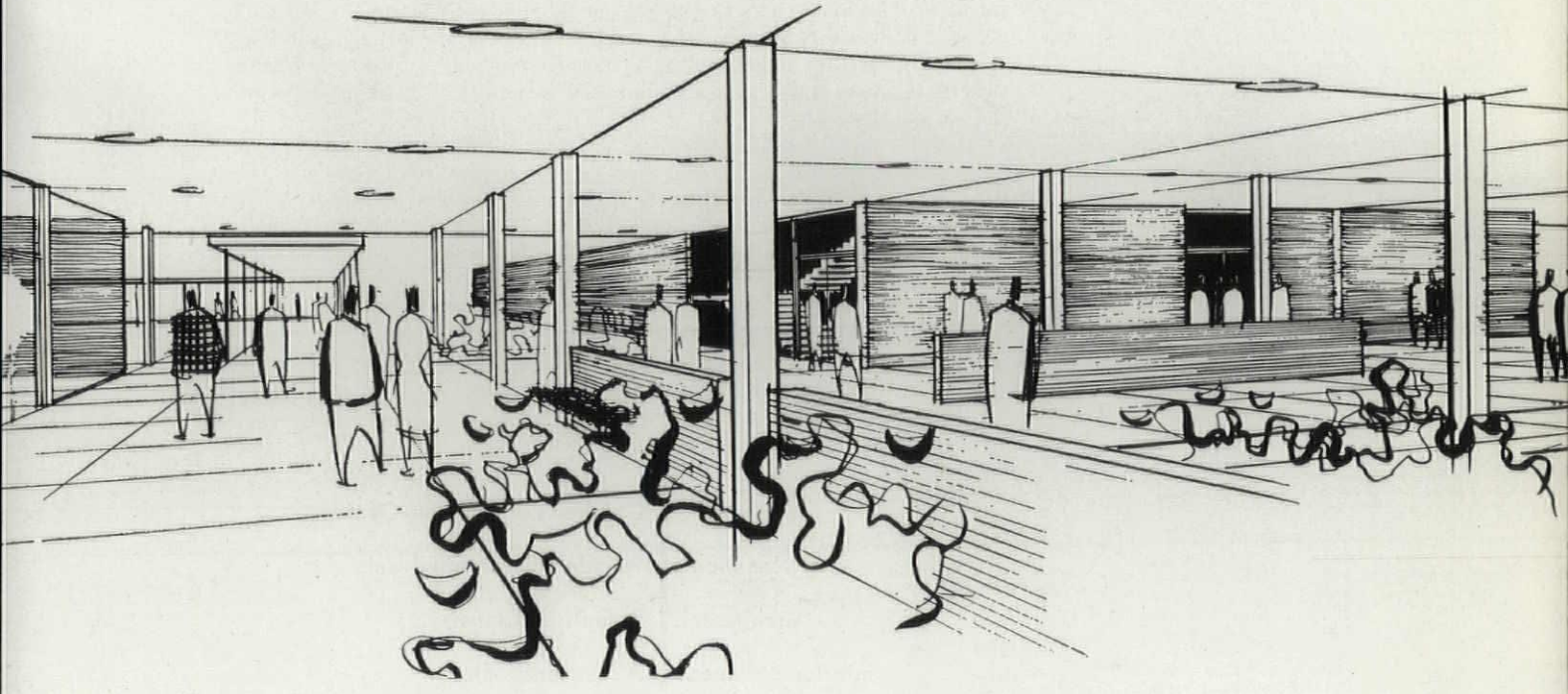
We do not wish to give the impression that interiors shown in this section this month were Award Winners, for they were not. These are interiors selected from projects that the Awards Jury chose for Citations, which we are showing because the Jury did not confer Awards for interiors this year.

Some of the interiors we are showing are relatively incomplete. The Kling and the Ciampi classrooms, as submitted in our Awards Program, give strong indication that they will have genuine interior design interest when completed.

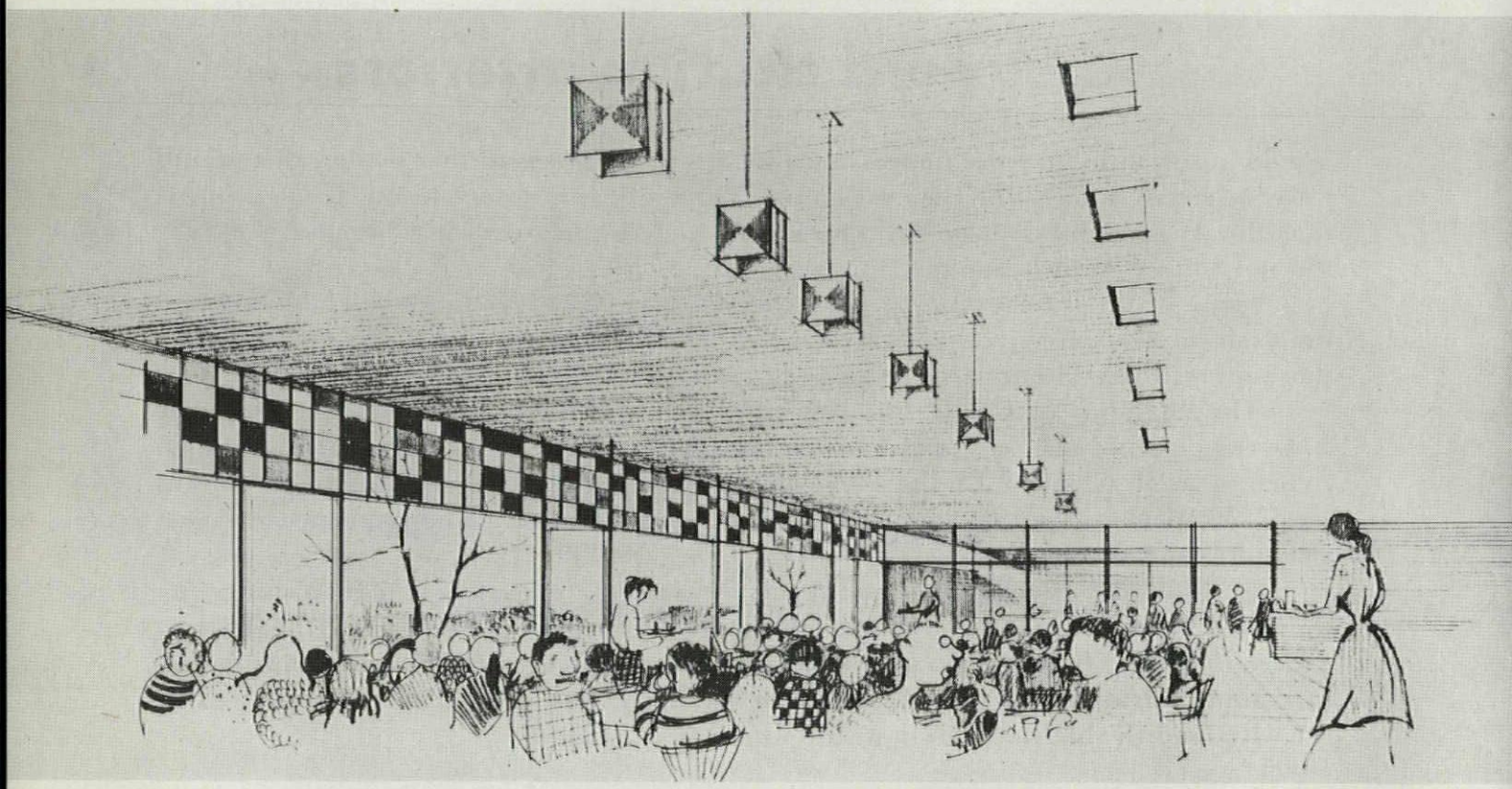
The Bellante & Clauss Children's Reception Center, with Interior Designer A. Gertrude Slaven as part of the design team from the inception, has fully developed interiors, well schemed for both the living and the emotional needs of its future small occupants. Scale, color, pattern, and function have all been given their just attention, and the results are excellent.

In Richard E. Baringer's Paoli residence, interior materials and furnishings for the adult wing have been thought through and properly related to the client's complete needs. Imagination and originality are clearly present in the interior design of Gunnar Birkert's vacation house, with the designer's hand noticeably present in the witty and livable integration of the whole.

Public space in George Washington Carver Junior-Senior High School, New Orleans, La., 1957 First Design Award Architects-Engineers: Curtis & Davis.



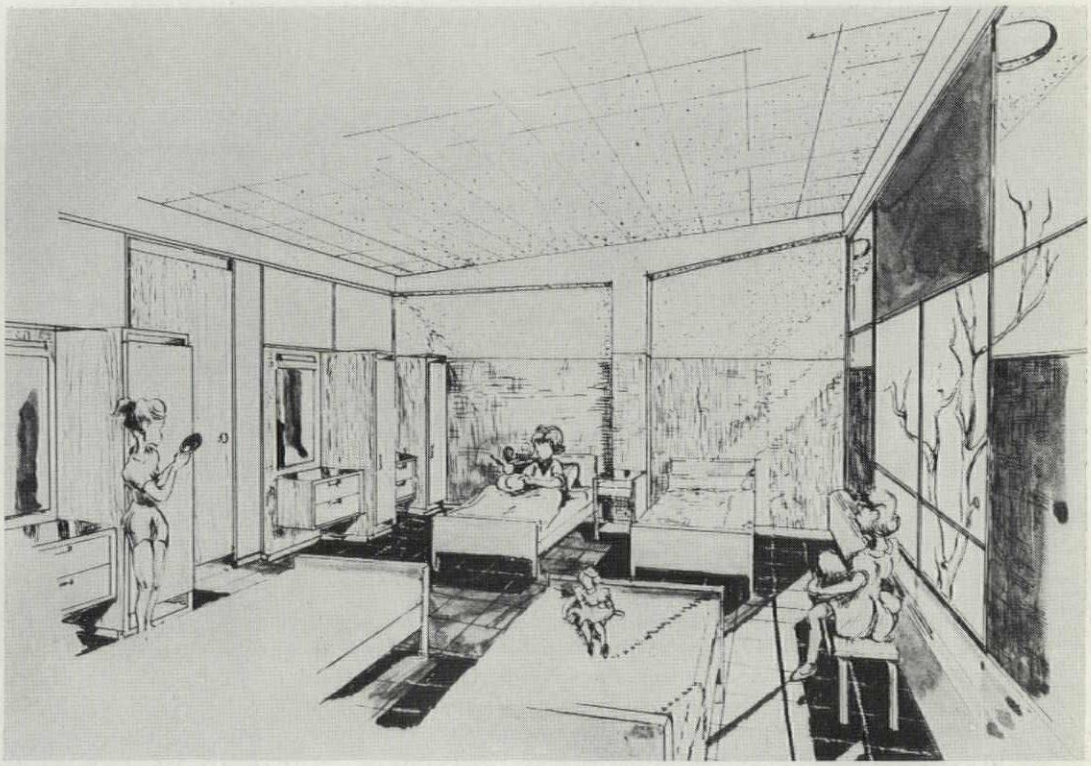
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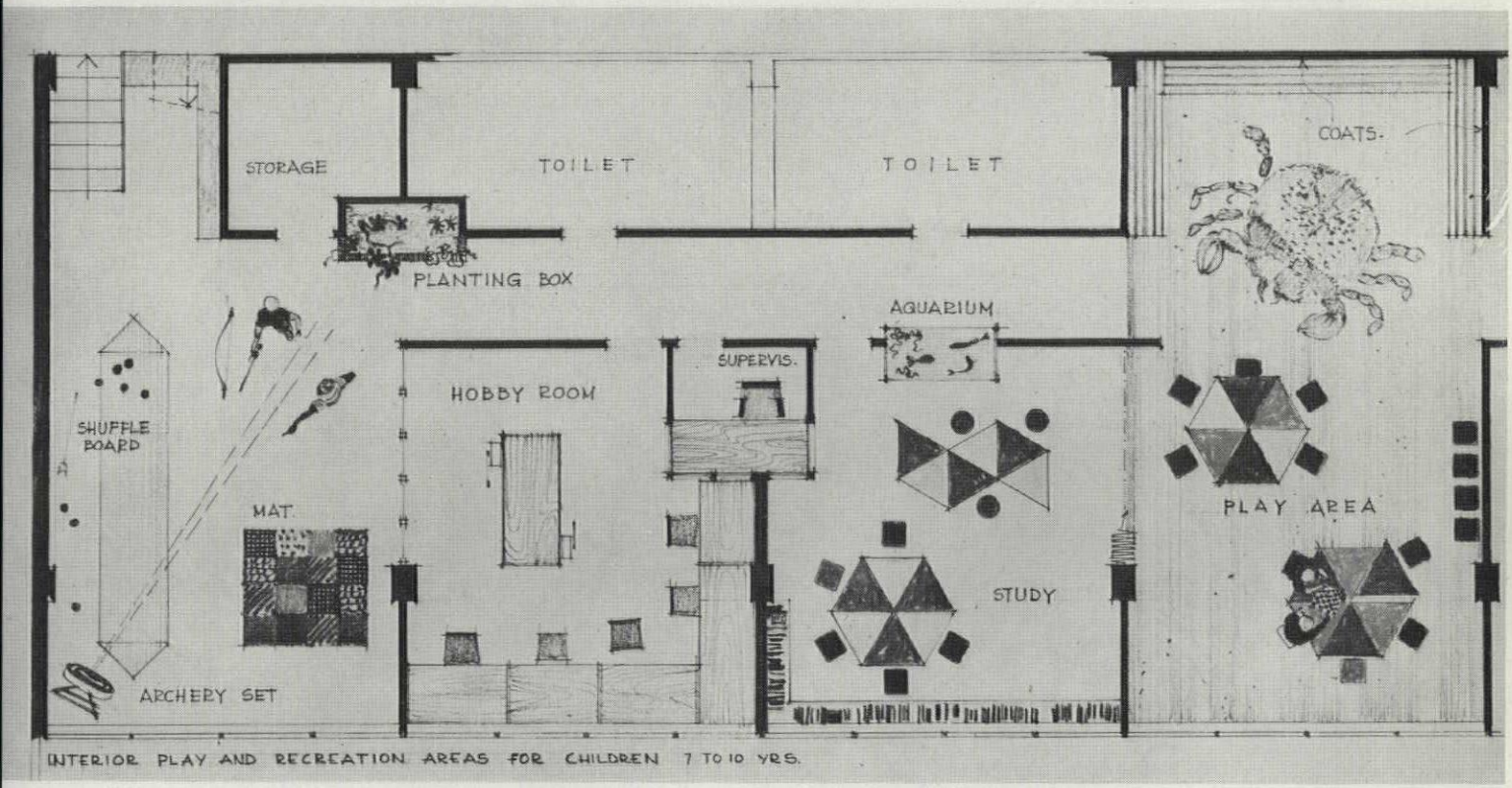


In the interior play and recreation area, the sleeping quarters, and the dining room, the architects project a warm and welcome atmosphere to help neglected and dependent children adjust to their new social life of group association. Bright colors will be used throughout to create a cheerful aura and minimize institutional character. In the sleeping rooms, built-in drawers and closets of natural birch will be scaled to size for the different age groups, and built-in wall shelves will be provided by each bed. Floors of vinyl tile, and walls covered in vinylized fabric, will be in quiet, restful colors. Structural framing will be expressed as a design feature and interesting lighting patterns will be integrated with it.

The play areas will have large wall expanses filled with chalkboards, white crayon surfaces, tackboards, and built-in cabinets for equipment and toys. Design patterns in the vinyl floor tile include such games as shuffleboard, hopscotch, and go-bang. Colorful cushions, Bertoia chairs, and several items of regular school furniture will combine to make interesting groupings of variegated colors and shapes. Nature will be stressed by the introduction of art and play sculpture in the form of animals and plant life, as well as by caged birds, aquaria, flower boxes. Flexible lighting will be achieved by means of trolley ducts for colored floodlights and reflectors.

project	Children's Reception Center
location	Philadelphia, Pennsylvania
architects	Bellante & Clauss
interior designer	A. Gertrude Slaven

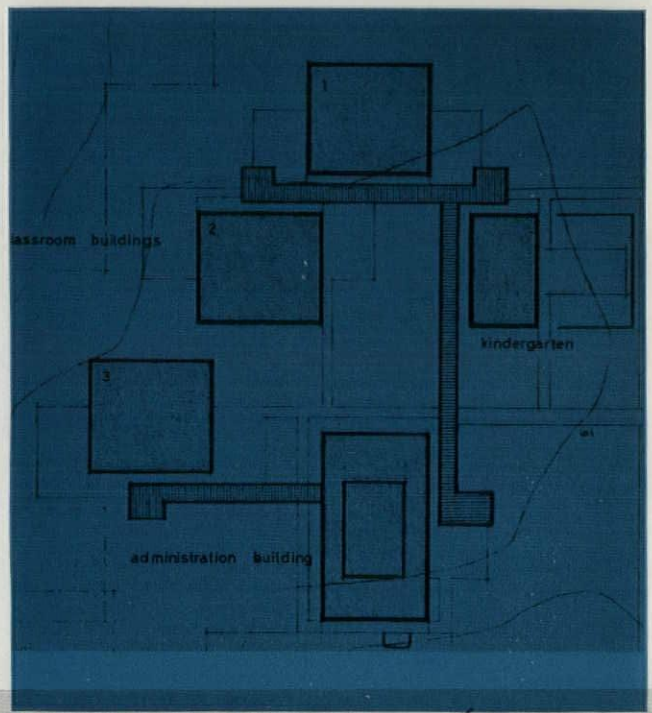




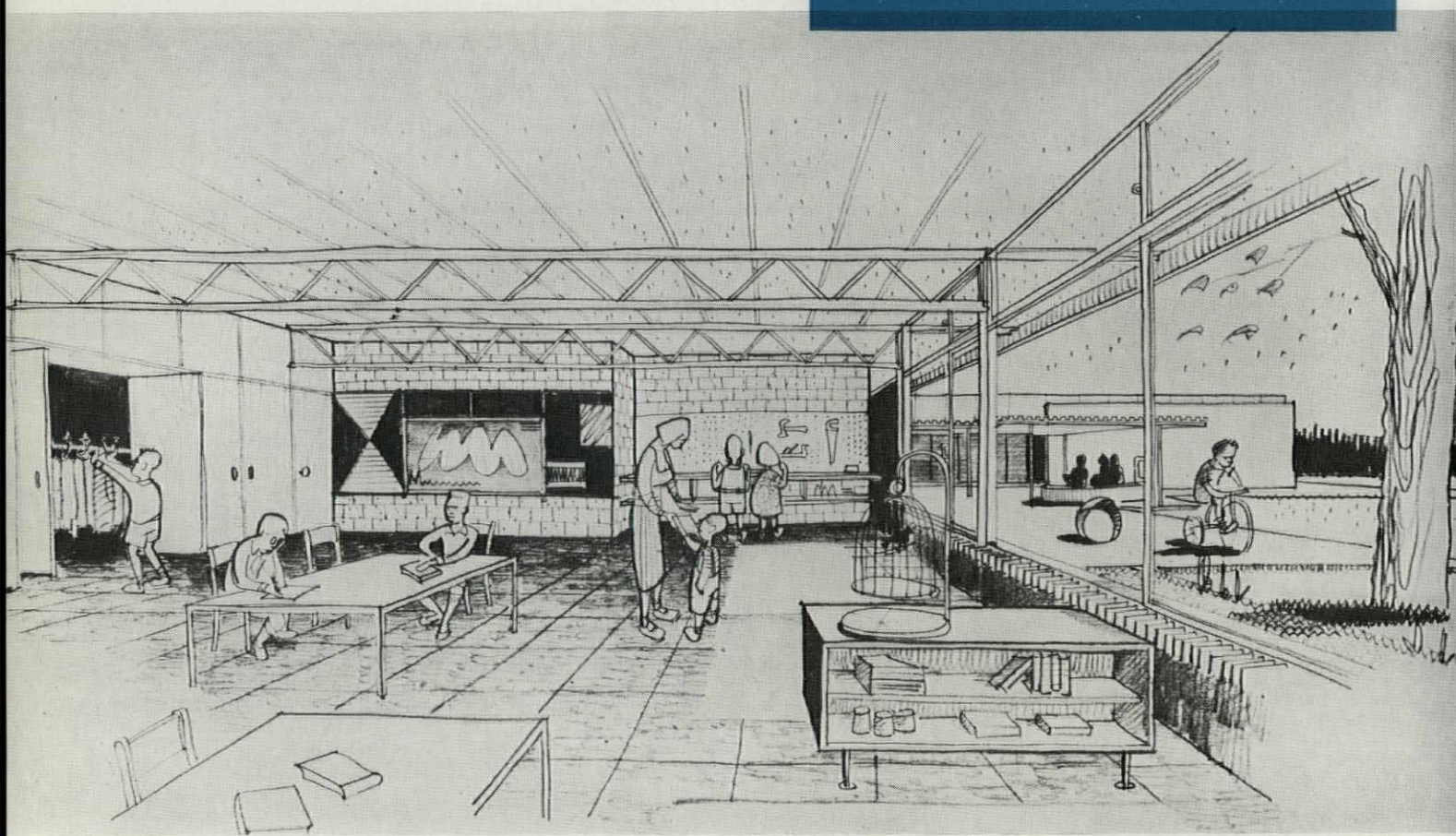
INTERIOR PLAY AND RECREATION AREAS FOR CHILDREN 7 TO 10 YRS.

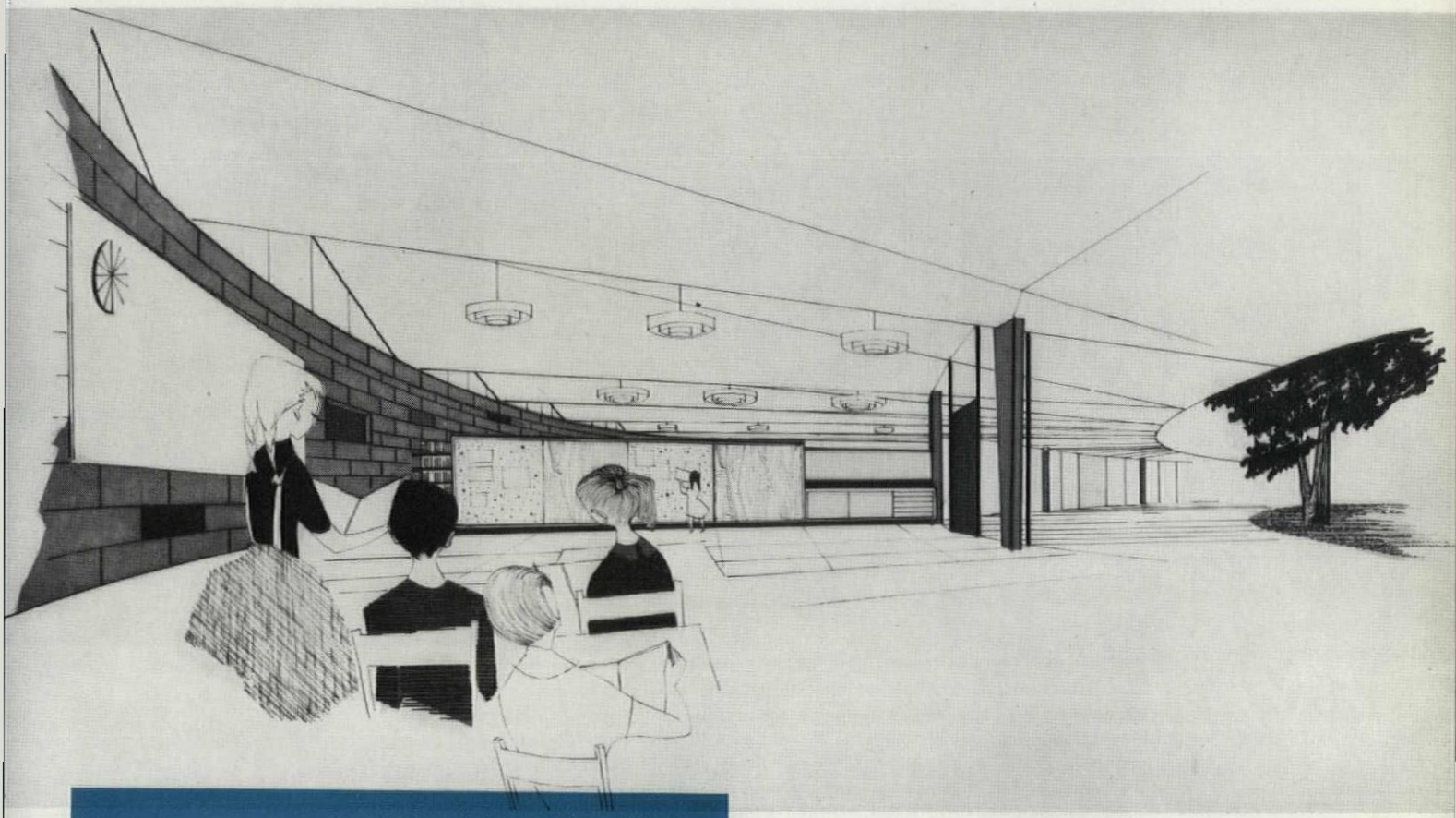
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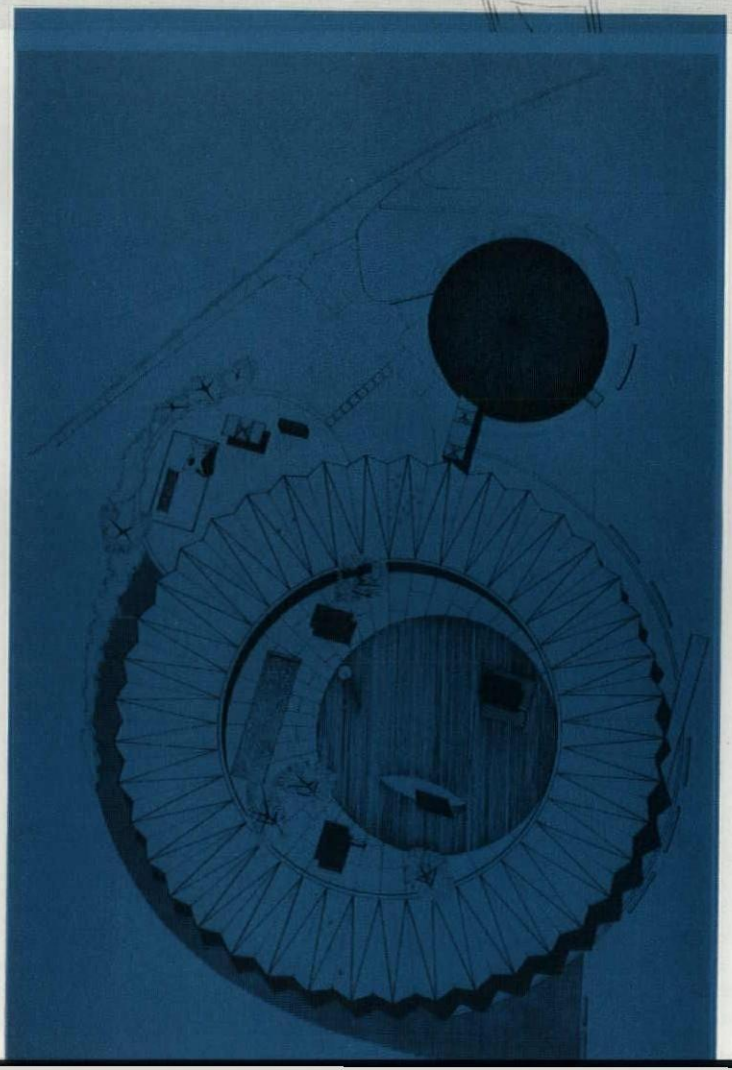
project	Hurffville Elementary School
location	Washington Township, New Jersey
architect	Vincent G. Kling



Classroom, with open view to planted outdoor court, is generously sized to accommodate class activities. Masonry walls will have brick exterior facing, and reinforced-concrete floors will be faced with plastic tile. Wardrobe storage and workshop facilities will be built-in; study and play-tables will be portable. Panels below the windows and on the upper section will be painted a light blue-green.



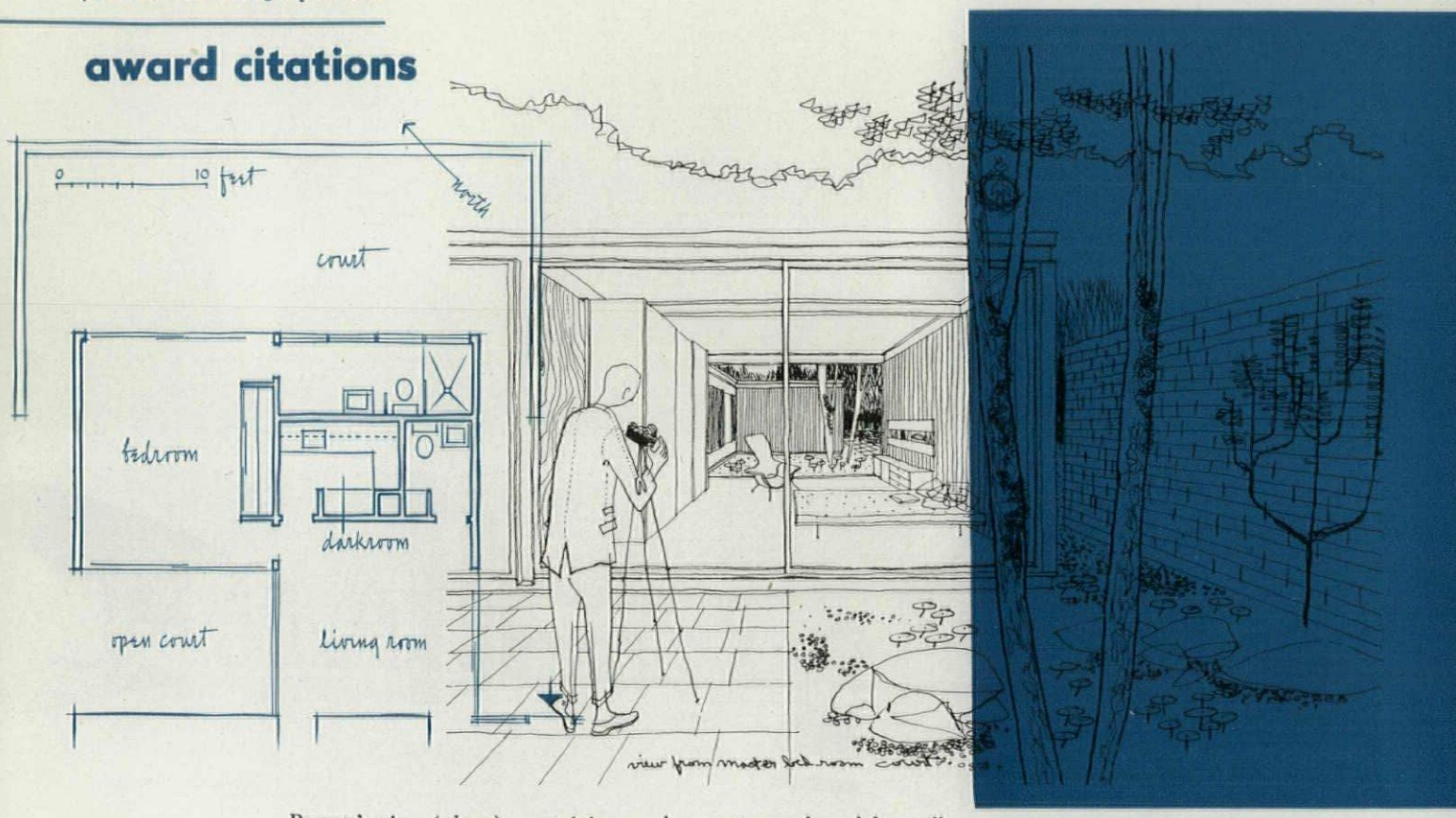




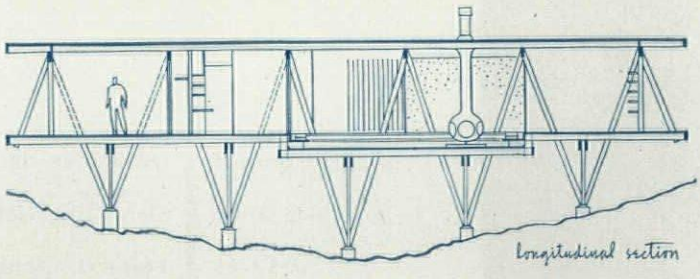
Spacious classroom will reflect colorful use of materials, combining brick and concrete-block walls, steel sash, and clear and colored glass. Corrugated decking will be painted in brilliant colors, and floors will be waxed-colored cement brush. All partitions, nonstructural, may be easily removed if required. Ceiling will be sprayed, acoustical plaster.

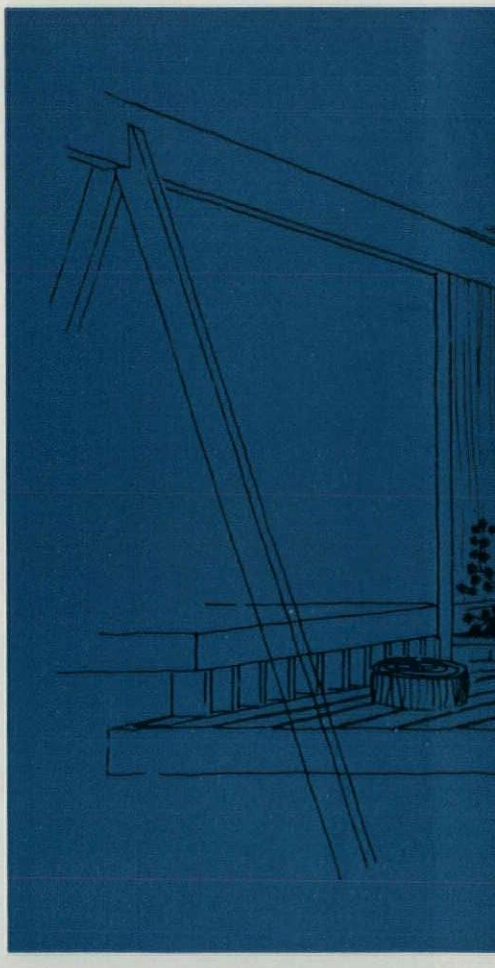
project	Vista Mar Elementary School
location	Daly City, California
architect	Mario J. Ciampi

award citations



Parents' wing (*above*), containing garden apartment for adults, will have natural mahogany planking on exterior wall with doors for rooms, wardrobes, and cabinets of Marlite in white, blue, and yellow. Color plan for the master bedroom calls for white steel frame, off-white carpeting, emerald-green bed of 4" foam-rubber slab on plywood base with chrome legs, Bertoia chair and ottoman in light blue. The custom-made cabinets will be white lacquer with black Bakelite drawers.





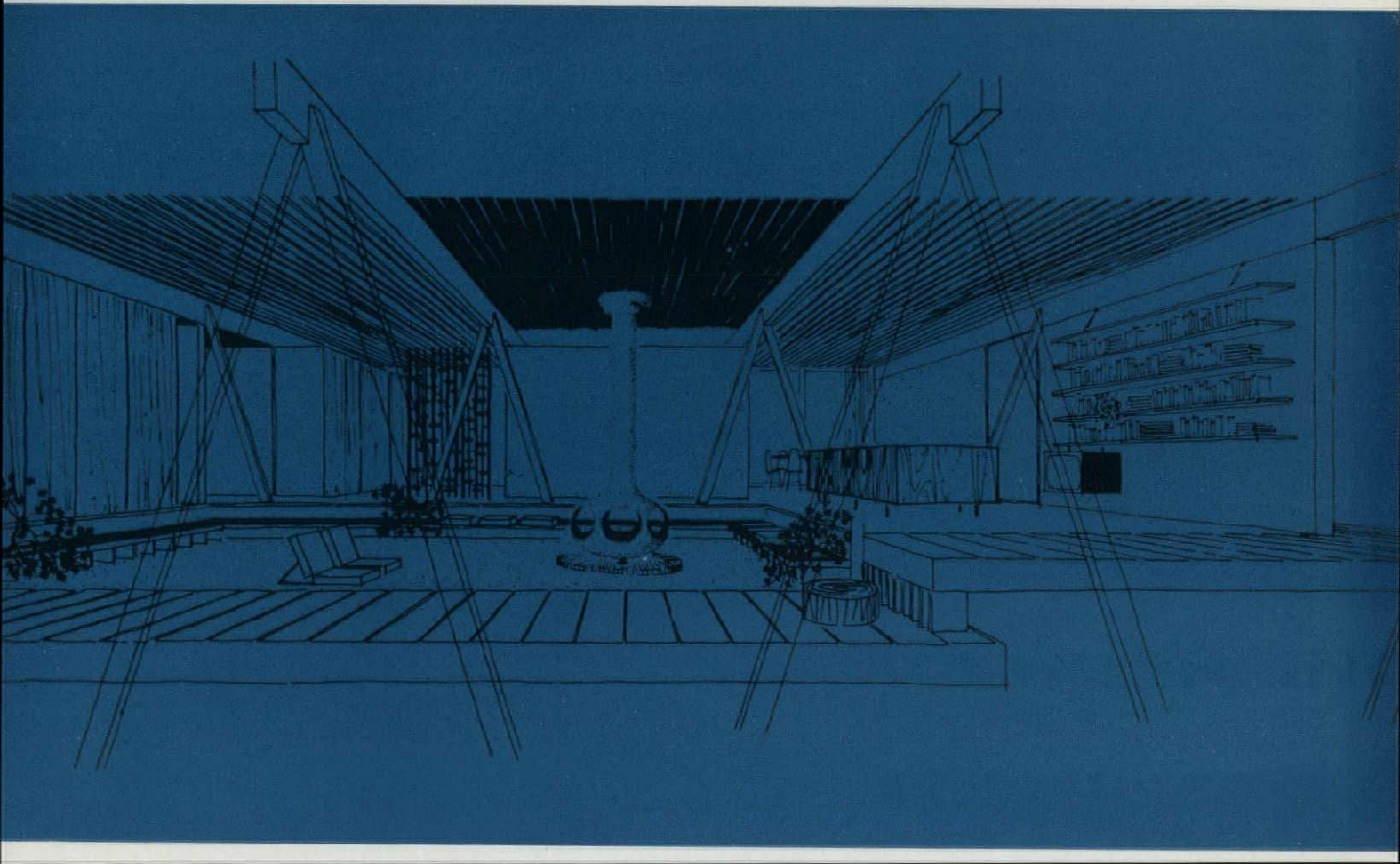
Different functions of the living area (*right*) will be set off by change of floor level, change in direction of maple flooring, change of color in ceiling materials, and screen-and-planting divider. Built-in seat in the library-TV area and loose cushions in the fireplace depression reduce need for furniture. The color plan is white for all vertical surfaces, exposed beams and columns, and floor-to-ceiling glass fiber draperies, with color introduced in the canvas ceiling and repeated in the canvas upholstery. For the entrance, black canvas with white slats; fireplace area, purple canvas with natural slats; TV area, yellow canvas, black slats dining area, yellow canvas, white slats.



project	house
location	Paoli, Pennsylvania
architect	Richard E. Baringer

Garden court (*left*) is to be paved with 1'x2' precast concrete blocks and planted with myrtle.

project	vacation house
location	Mequon, Wisconsin
designer	Gunnar Birkerts

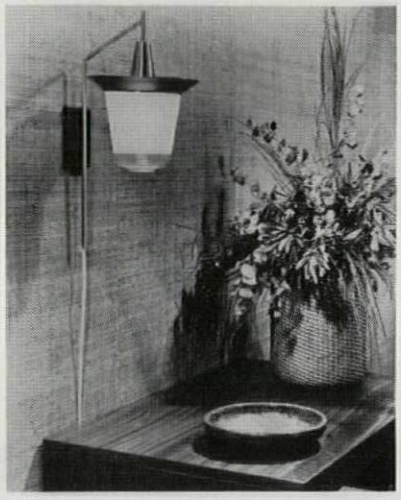


p/a interior design products





"Multiples Unlimited": (top)/ 19 basic drawer, shelf, and chest units plus legs in three heights and glass door fronts/ may be stacked or placed side by side/ of natural grain walnut with burnished pulls/ designed by F. B. Arthur; **Coffee Table** (left) of walnut, micarta top/ 64½" x 36" x 16"/ designed by Van-Keppel-Green/ **retail: $159.50/ Brown-Saltman of California, 2570 Tweedy Blvd., South Gate, Calif.**

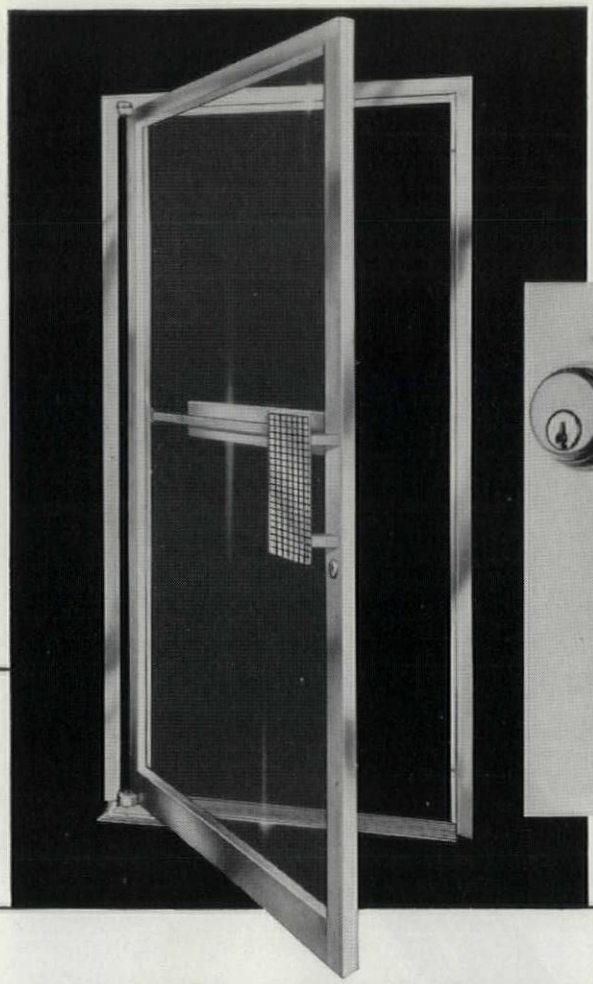


Wall Fixtures: "Lantern" (right)/ translucent bell-shaped glass globe/ brass and walnut trim/ **retail:** $37.50; "Globe" (below)/ opal glass/ perforated brass shades/ walnut mount/ **retail:** $60/ both designed by Beverly Pick/ **Nessen Studio, Inc., 5 University Pl., New York 3, N. Y.**



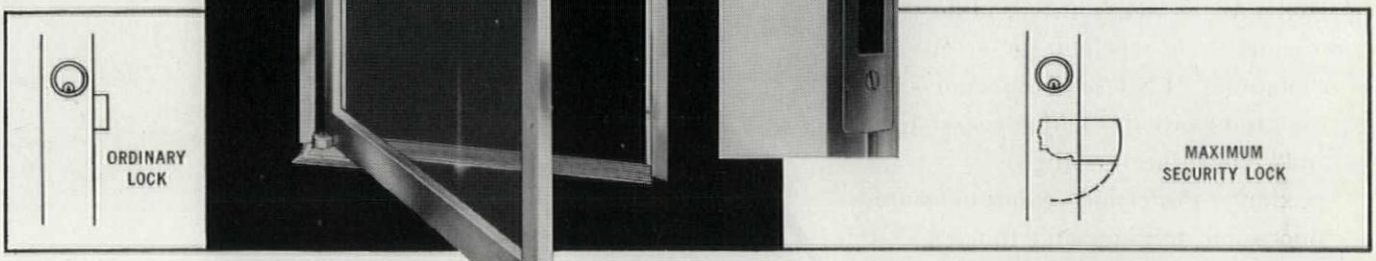
Lounge Chair: Swedish import/ foam-rubber-padded "Resisto" springs/ frame of Swedish beech hand-finished in teak, natural, dark walnut, or black/ imported upholstery or in customer's own fabrics/ 33" wide, 38" deep, 34" high, 16" seat/ designed by Folke Ohlsson/ **Dux, Inc., 390 Ninth St., San Francisco 3, Calif.**





Now—Kawneer is the first to offer adams-rite MS (maximum security) deadbolt as part of the standard door program

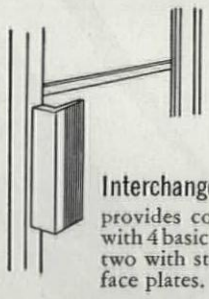
The MS deadbolt is the strongest, most compact deadlock yet devised for narrow-stile aluminum doors. It retains as much bolt within the lock stile as is projected. Thus it bridges the opening with a laminated bar of steel. This rigid construction makes forced entry impossible without complete destruction of the door channel itself.



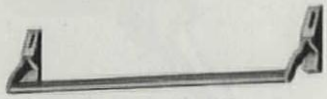
ONE BASIC DOOR

with hardware for every need

The new Kawneer narrow-stile door has all the qualities of a "custom-made" product. Welded construction is used to insure maximum strength with slim, attractive lines. Deep etch alumiliting and no exposed screws assure continued good appearance. The wide selection of hardware provides great flexibility of design. See Sweet's $\frac{16a}{Kaw}$ for complete information.



Interchangeable Hardware provides complete flexibility with 4 basic push-pull groups, two with standard or custom face plates.



Panic Device by Kawneer is designed with fewer parts, a bar shaped to fit the hand and for lower cost.

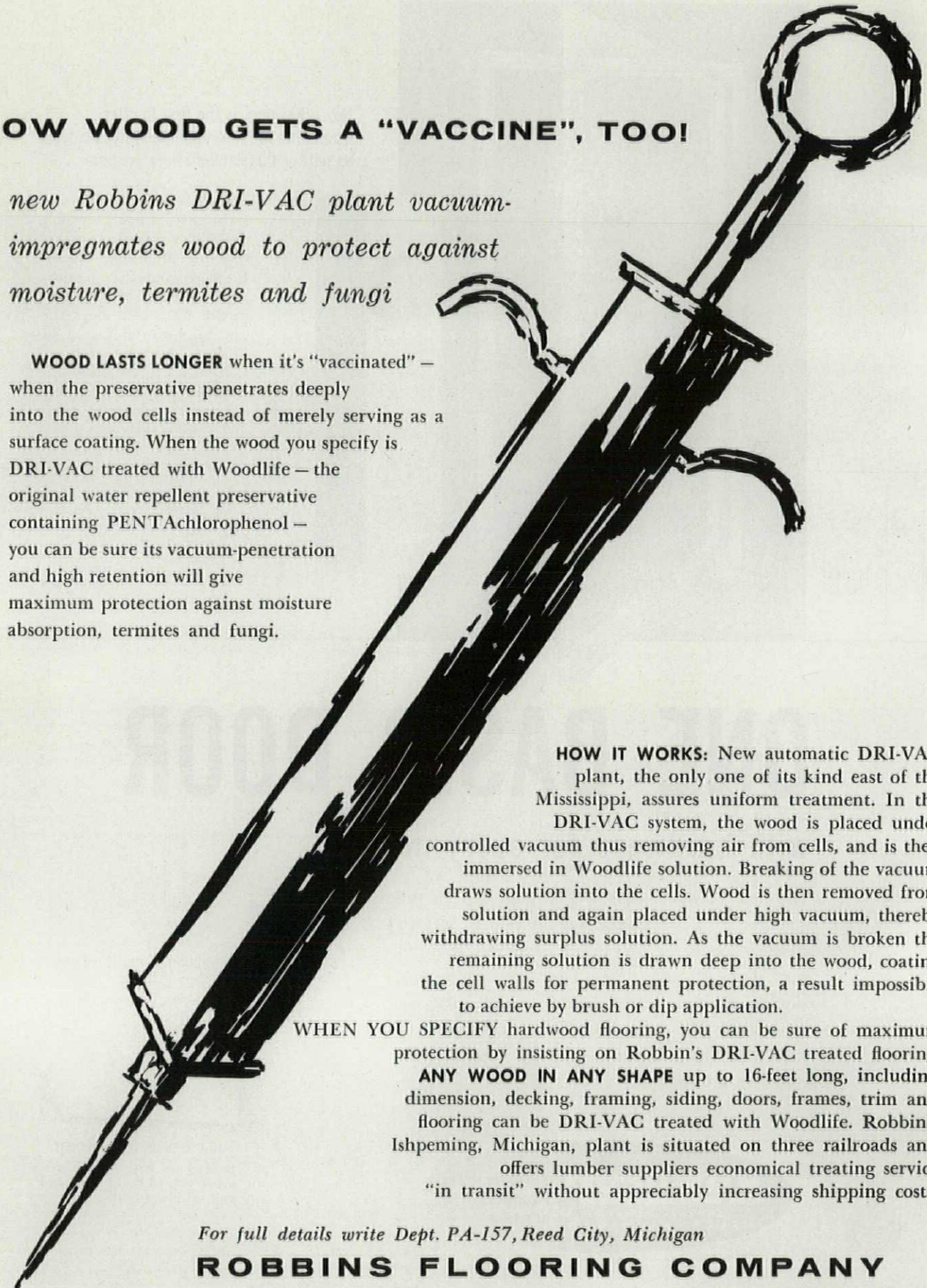
Kawneer
General Offices
NILES, MICHIGAN
ARCHITECTURAL PRODUCTS DIVISION

THE KAWNEER COMPANY CONSISTS OF A NATIONWIDE NETWORK OF STRATEGICALLY LOCATED SALES ENGINEERING OFFICES, FACTORIES AND WAREHOUSES:
EXECUTIVE OFFICES—Niles, Mich. FACTORIES—Berkeley, Cal., Lexington, Ky., Niles, Mich., St. Charles, Ill., Toronto, Ont., Kawneer de Cuba, Havana, Kawneer de Mexico, Mexico City
WAREHOUSES—Atlanta, Ga., Brooklyn, N. Y., Cambridge, Mass., Chicago, Ill., Cleveland, O., Dallas, Tex., Los Angeles, Cal.

SALES ENGINEERING OFFICES:											
Albany, N. Y.	Berkeley, Cal.	Cambridge, Mass.	Cleveland, O.	Detroit, Mich.	Memphis, Tenn.	Oakland, Cal.	Portland, Ore.	Seattle, Wash.	Stamford, Conn.	Havana, Cuba
Atlanta, Ga.	Brooklyn, N.Y.	Chicago, Ill.	Dallas, Tex.	Kansas City, Mo.	Minneapolis, Minn.	Philadelphia, Pa.	Pittsburgh, Pa.	Sacramento, Cal.	Wichita, Kan.	Mexico City, Mex.

NOW WOOD GETS A "VACCINE", TOO!

new Robbins DRI-VAC plant vacuum-impregnates wood to protect against moisture, termites and fungi



WOOD LASTS LONGER when it's "vaccinated" — when the preservative penetrates deeply into the wood cells instead of merely serving as a surface coating. When the wood you specify is DRI-VAC treated with Woodlife — the original water repellent preservative containing PENTAchlorophenol — you can be sure its vacuum-penetration and high retention will give maximum protection against moisture absorption, termites and fungi.

HOW IT WORKS: New automatic DRI-VAC plant, the only one of its kind east of the Mississippi, assures uniform treatment. In the DRI-VAC system, the wood is placed under controlled vacuum thus removing air from cells, and is then immersed in Woodlife solution. Breaking of the vacuum draws solution into the cells. Wood is then removed from solution and again placed under high vacuum, thereby withdrawing surplus solution. As the vacuum is broken the remaining solution is drawn deep into the wood, coating the cell walls for permanent protection, a result impossible to achieve by brush or dip application.

WHEN YOU SPECIFY hardwood flooring, you can be sure of maximum protection by insisting on Robbin's DRI-VAC treated flooring. **ANY WOOD IN ANY SHAPE** up to 16-feet long, including dimension, decking, framing, siding, doors, frames, trim and flooring can be DRI-VAC treated with Woodlife. Robbins' Ishpeming, Michigan, plant is situated on three railroads and offers lumber suppliers economical treating service "in transit" without appreciably increasing shipping costs.

For full details write Dept. PA-157, Reed City, Michigan

ROBBINS FLOORING COMPANY

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DRI-VAC TREATED
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PERMIT NO. 15
ROBBINS FLOORING CO.

Look for this stamp. It is your guarantee that wood has been properly DRI-VAC treated.

DUNHAM-BUSH

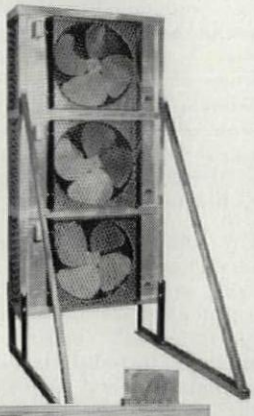
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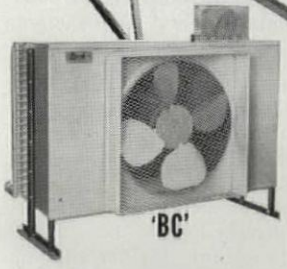
'CDT'



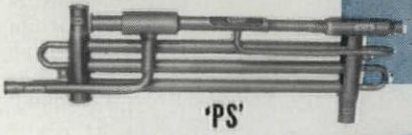
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Wherever water is scarce, expensive, or contains excessive impurities . . . or wherever disposal facilities are inadequate . . . a Dunham-Bush water-saver can solve the problem. Whatever your need or preference in water-saving equipment, there's a Dunham-Bush unit to meet it.

All Dunham-Bush water-savers incorporate the most advanced engineering design . . . feature rugged, top quality construction.

For single-source simplicity, select DUNHAM-BUSH. And for capable engineering or application assistance, call on the experienced Dunham-Bush sales engineer in your area.

'CDT' COPPER DECK COOLING TOWERS

All copper decking cannot rust or rot. Sectional construction permits arrangement with blower fan or propeller fan . . . permits substitution of Inner-Fin coil for operation as evaporative condenser.

'PFC' PROPELLER-FAN CONDENSERS

Permit condensing of refrigerant *without use of water*. Two basic models, 2.2 Tons and 3.3 Tons, can be combined by mounting in banks to obtain any desired tonnage.

'IEC' INNER-FIN EVAP CONDENSERS

Inner-Fin coil construction, a *Dunham-Bush exclusive*, permits compactness of construction impossible in other units. Can be operated DRY where conditions warrant. Can be arranged with blower fan or propeller fan . . . converted to cooling tower by substitution of copper decking for condenser coil.

'BC' BLOWER CONDENSERS

For *waterless* condensing. Available in capacities up to 20 Tons, units feature low noise level . . . *quiet* operation. Famed Inner-Fin coil construction, rugged all-steel cases with durable rust-resistant finish. Easy to install; available arranged with blower fan or propeller fan.

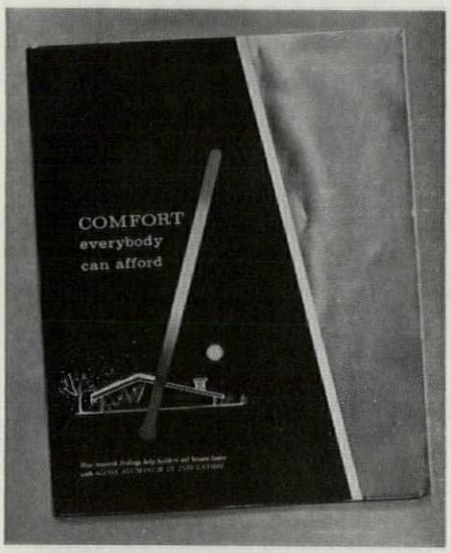
'PS' PRESSURE STABILIZERS

Automatically maintain satisfactory head pressure when air cooled condensers operate outside in low ambient temperatures.

Request catalogs containing complete specifications on units shown.

DUNHAM-BUSH, INC.

WEST HARTFORD 10 • CONNECTICUT • U. S. A.



Independent research projects conducted at National Bureau of Standards and Pennsylvania State University—to determine the value of reflective-surfaces used on bulk insulating materials—served as the basis for new Alcoa publication, Comfort Everyone Can Afford, *which deals specifically with aluminum-foil-clad insulation for the home.*

By far the most useful portion of this six-section booklet is a series of tables designed to simplify and speed estimations of cooling/heating costs, loads, and equipment size. "U" values and weather data selected from given tables are applied to specially prepared charts; by drawing lines to points representing the known factors, accurate solutions may be arrived at with a minimum of calculations.

In addition to these charts, the booklet offers general information on the aforementioned research projects, the reasons for insulating homes, principles and values of aluminum-clad insulation, and methods of application as well as specific design data using the basic principles of insulation to: (1) reduce summer sun load; (2) retard heat flow; (3) stimulate attic air flow; and (4) control moisture.

Copies of Comfort Everyone Can Afford, *(52-P.) are available from Aluminum Company of America, Pittsburgh 19, Pa.* R.C.

★ *Editor's Note: Items starred are particularly noteworthy, due to immediate and widespread interest in their contents, to the conciseness and clarity with which information is presented, to announcement of a new, important product, or to some other factor which makes them especially valuable.*

air and temperature control

182. Duct Sizing Calculator, 21-p. instruction manual with pocket containing sliding-scale air-conditioning duct calculator. Manual explains procedure for determining residential heat gains. Supplies map and chart for calculating outdoor temperature range to determine capacity of air-conditioning units; discusses factors influencing duct and register size and location. Gives instructions for using calculator to size complete supply- and return-duct systems for small homes. Armstrong Furnace Co., Columbus 8, Ohio.

Worthington Air-Conditioning Units, 52-p. looseleaf data book designed to simplify selection of central-station, cabinet-type, vertical or horizontal air-conditioning units for installation in virtually any location. Indexed sections provide: dimensions and specifications for 10 models; step-by-step procedures, graphs, tables for determining cabinet size, coil capacity, and fan performance curves; drawings of units. Available on request to: Editor, Climate Chart, Advertising & Sales Promotion Dept., Worthington Corp., Harrison, N. J.

Electric House Heating, AIA 30-C-44, 28-p. manual intended as guide for design of electric house heating installations. Recommends standards for residential insulation; outlines methods of computing heat loss and estimating annual kwhr consumption. Includes sample problems as well as tables of heat loss coefficients, outdoor design temperatures, and yearly degree days. Available on request to: National Electrical Manufacturers Assoc., 155 E. 44 St., New York 17, N. Y. 25¢

183. Servel Air Conditioner, 4-p. brochure enclosing color-coded flow charts and specification sheet, introduces new year-round gas air conditioner with single heating/cooling system, for residential use. Describes system which operates on absorption principle, dispensing with moving parts. Separate easy-to-read flow diagrams demonstrate complete heating and cooling cycles. Dimensioned drawings show location of gas and water connections. Servel, Inc., Evansville 20, Ind.

184. Audivent Ventilator, 12-p. publication discussing features of heater/ventilator unit designed for particularly quiet operation desirable in auditoriums, gymnasiums, and other spacious room areas. Drawings suggest numerous arrangements of damper and discharge sections with units in three positions: horizontal for ceiling, upright for floor, and inverted for wall installation. Components and accessories are described and illustrated. Includes tabulated data on heating, capacity, air delivery, fans, filters, and motors. Photos, specifications. Herman Nelson, American Air Filter Co., Inc., 215 Central Ave., Louisville, Ky.

185. Norman Schoolroom System, 40-p. folder on individually packaged, forced-air perimeter heating/ventilating systems for installation in classrooms. Describes operation of system which utilizes gas-fired, fully enclosed furnace; electrically controlled damper assembly; and bookshelf section with built-in perimeter diffusers. Dimensional drawings, capacity chart, outline of features. Norman Products Co., 1150 Chesapeake Ave., Columbus 12, Ohio.

186. Gas Vent Pipe and Fittings, AIA 30-D-4, 16-p.

187. Facts About Gas Venting, AIA 30-D-4, 16-p. Two booklets on insulated gas venting systems for use with home gas appliances. First booklet presents components in catalog form. Shows round and oval pipes with galvanized-steel outer casing, aluminum inner pipe, and special coupler connection; lists standard-length pipe sections and adjustable, telescopic type. Discusses economies in design and installation of system. Photos, outline drawings. Second booklet outlines fundamentals of gas venting. Detail drawings show installation of vertical vents in most common locations. Includes: data on selection of vents and planning system for particular requirements; partial catalog of components. Metalbestos Div., William Wallace Co., Belmont, Calif.

188. Uni-Flo Airturns, 4-p. file folder featuring prefabricated air-turning device designed to give square duct corner economies of sweeping radius elbow. Photos show how airturn with multiple-radius vanes is installed. Includes dimensions, pressure loss data, general information. Uni-Flo, Barber-Colman Co., Rockford, Ill.

189. Chromalox Electric Heating, AIA 31-K-3, 16-p. product guide exhibiting line of built-in and bracket-mounted residential electric heaters. Describes electric baseboards, radiant wall panels and ceilings, high-output fan-driven heaters. Photos show fully installed units while drawings illustrate procedure for installation. Also presents selection of thermostats as well as automatic and manual portable heaters. Chart of approximate heating costs and kw requirements. Edwin L. Wiegand Co., 7500 Thomas Blvd., Pittsburgh 8, Pa.

construction

254. Tecfab Panels, 4-p. leaflet presenting lightweight masonry panels for construction of complete exterior wall, interior partition, floor or roof systems. Describes advantages of steel-reinforced

panels with exposed aggregate exterior and smooth perlite interior surface. Photos suggest extreme diversity of color and textural effects attainable with various aggregate combinations. Drawings show panels joined by concealed and exposed structural steel. Includes color photos of actual wall systems. Tecfab Inc., Beltsville, Md.

255. Concrete-Forming Equipment, AIA 4-D-3, 25-p. general catalog providing detail descriptions and illustrations of varied range of equipment used to form concrete: plywood and steel-ply panels, form ties, miscellaneous hardware, and bracing. Sections cover high walls; curved walls; battered-wall construction. Provides additional data on safety shores along with photos of typical construction jobs. Self-explanatory drawings show connections and special conditions. Symons Clamp & Mfg. Co., 4249 Diversey Ave., Chicago 39, Ill.

256. Homasote Boards, 68-p. pocket handbook touching upon many phases of construction where homasote insulating-building boards are applicable: sheathing, siding, roof deck interior walls, and underlayment. As reference book, provides tables giving insulating values of building materials, results of nail-pullout and racking tests; as builder's guide, prescribes nails, adhesives, and paint for jobs described; for decorators, it furnishes data on striated and wood-textured panels, ceiling tile effects and tooling. Stocked with numerous details, drawings, charts. Homasote Co., Trenton 3, N. J.

257. Ribtread Stair Treads, AIA 14-D-1, 4-p. catalog sheet of extruded aluminum and bronze safety stair treads with abrasive or lead fillers for use on concrete, wood, linoleum, and other stair materials. Drawings show selection of level- or square-backed nosing, deep lip, and flat-type tread shapes. Suggests alternate screw fastenings. Ribtread American Abrasive Metals Co., Irvington 11, N. J.

258. Hardwood Plywood, 24-p. handbook reprinted from June 1955 *American Builder*, serves as guide to installation and specification of hardwood plywood panels for walls, doors, and built-in furniture. Gives step-by-step procedure for applying panels to stud, masonry, or plaster walls; suggests designs for storage walls and cabinets; supplies data on purchasing plywood and identifying panels by grade. Color photos illustrate some popular grain and figure patterns which are recommended for specific applications. Hardwood Plywood Institute, 600 S. Michigan Ave., Chicago 5, Ill.

doors and windows

385. Wooster Metal Doors, 12-p. publication containing data on standardized, modular, hollow-steel doors and frames for variety of installations. Illustrates series of plain, louvered, glazed, sliding, and double doors; offers details of typical frame installations in plaster, stud, or masonry walls as well as drawings of standard frame shapes. Engineering details of locks, bolts, and hardware locations on standard doors. United Steel Fabricators, Inc., Wooster, Ohio.

electrical equipment, lighting

471. Luminous Ceilings, AIA 31-F-290, 4-p. brochure illustrating various types of wall-to-wall overhead lighting systems which absorb sound, control air flow, and provide uniform diffused light. Keyed drawings show metal-track suspension installations of plastic modular-design square-panel ceiling system; system of perforated-steel acoustical baffles suspended below corrugated plastic ceiling. Luminous Ceilings Inc., 2500 W. North Ave., Chicago 47, Ill.

472. Sylvan-Aire Illumination, 18-p. booklet describing advantages and applications of wall-to-wall lighting/sound control system with concealed overhead cavity for air-conditioning, plumbing, or electrical ductwork. Photos show method of installing fixtures, vinyl-plastic diffusing surface, and steel-encased glass-fiber acoustical units. Explains two basic suspension systems permitting either flexible or standardized arrangement of fixtures. Gives data on lighting levels, fixtures, and lamps. Sylvania Electric Products Inc., 1740 Broadway, New York 19, N. Y.

473. Spero Lighting Fixtures, AIA 31-F-2, 56-p. catalog reviewing line of industrial/commercial incandescent lighting equipment. Covers horizontal and angled lens reflectors which accommodate both anti-arc disconnect and standard sockets. Also, wire-gaged gym lights; weatherproof vaporlights; swivel-mounted floodlights and accessories as well as special designs for roadways, parks, theater aisles. Photos show units for outlet box, surface, or pendent mountings. Supplies charts with dimension data, diagrams, descriptions, and cross references to government specifications. The Spero Electric Corp., 20500 St. Clair Ave., Cleveland 17, Ohio.

474. Luxtrol Light Control Equipment, AIA 31-F-25, 16-p. pamphlet cataloging equipment for regulating intensity of fluorescent, incandescent, or cold-cathode illumination in auditorium and small single-room installations. Illustrations show noninterlocking floor-mounted control-unit assemblies and individual panel-mounted units. Describes manually operated and motor-driven controls. Photos, circuit diagrams, detail drawings, ordering data. Superior Electric Co., Bristol, Conn.

475. System - Engineered Equipment, GED-3038, 40-p. booklet featuring electrical equipment for commercial power distribution. Discusses planning of electrical distribution systems using cutaways, photos, and graphs for clarity. Presents standard control units and accessories in five separate sections; provides guide for selecting wires and cables; shows typical installations of most equipment. General Electric Co., Schenectady 5, N. Y.

★ **476. Interior Lighting Design Data,** 52-p. manual intended as basic reference book for architects and engineers designing interior lighting installations. Describes footcandle levels required for such seeing tasks as drafting, bookkeeping, and machine operating; levels are assigned to specific interior areas of all conceivable types from armories and airplanes to textile mills. Also, suggests methods of calculating light quantities as well as selecting lighting systems, maintenance factors, and locations for luminaires. Provides tabulated textbook data on room indexes and coefficients of utilization in addition to series of charts that facilitate computations. Westinghouse Lamp Div., Bloomfield, N. J.

★ **"Plan-It-Yourself" Lighting Layout Kit,** packet containing equipment and data for planning complete fluorescent lighting layouts using 1-, 4-, or 8-ft fixtures as well as luminous ceilings. Provides: fluorescent lighting slide-rule estimator to determine number of fixtures required; scaled cardboard fixture units with gummed-paper replicas to fix permanent layout; scaled layout sheets. Includes booklet of general lighting design data and folder listing capacities, dimensions,

(Continued on page 154)

PROGRESSIVE ARCHITECTURE, 430 Park Avenue, New York 22, N. Y. I should like a copy of each piece of Manufacturers' Literature circled. We request students to send their inquiries directly to the manufacturers.

182	255	475	839
183	256	476	840
184	257	518	841
185	258	631	842
186	385	632	947
187	471	730	948
188	472	731	
189	473	732	
254	474	838	

please print

Name

Position

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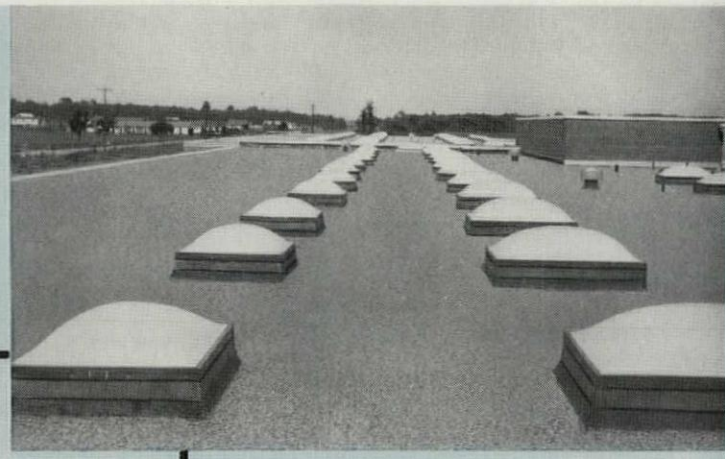
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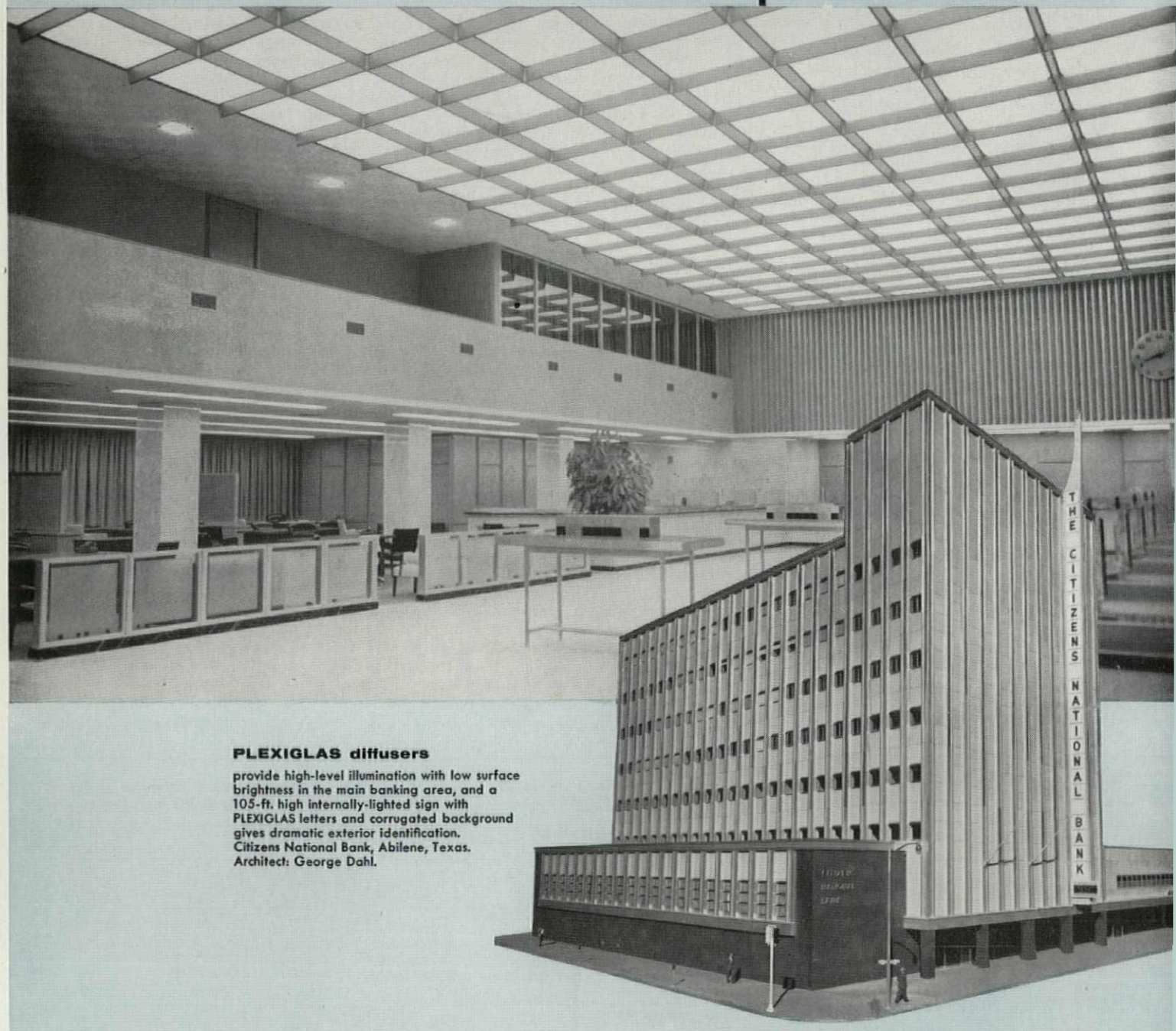
City State

Coupon must be used by 3/1/57.

Skylights with domes

formed from PLEXIGLAS provide efficient, balanced daylighting. Covington Elementary School, Laurenburg, N.C. Architect: Leslie Boney.





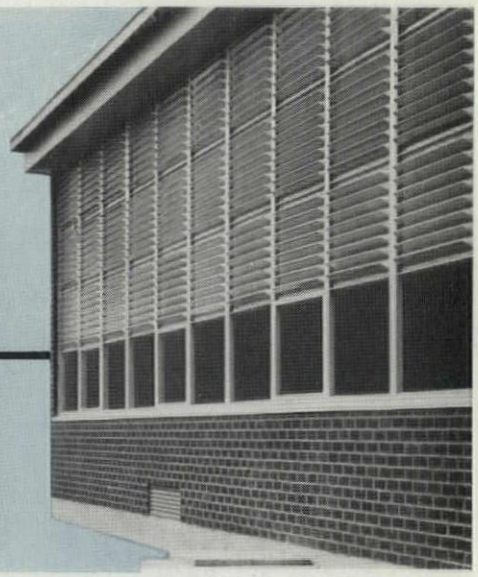
PLEXIGLAS diffusers

provide high-level illumination with low surface brightness in the main banking area, and a 105-ft. high internally-lighted sign with PLEXIGLAS letters and corrugated background gives dramatic exterior identification. Citizens National Bank, Abilene, Texas. Architect: George Dahl.

Daylight Louver Panels

formed from PLEXIGLAS, for light transmission, daylight control, and weather closure in one continuous surface. McKinley School, Boise, Idaho. Architect: Anton E. Dropping.





PLEXIGLAS

The Architectural Plastic

. . . for lighting . . . signs . . . skylights . . . daylight-control glazing

It is the outstanding *combination of properties* obtained with PLEXIGLAS® acrylic plastic that accounts for the specification of this material for so many light-transmitting applications. PLEXIGLAS is—

Formable economically into domes, pans, spandrels, louvered panels, letters, sign faces, and corrugated sections.

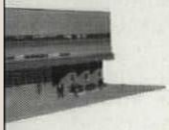
Resistant to age, weather, sun and corrosion.

Strong, yet light in weight.

Efficient in the transmission and diffusion of light.

Clear, in transparent form, as optical glass.

The coupon below will bring you color samples and the names of sources of supply for building products and signs that incorporate PLEXIGLAS.



Chemicals for Industry

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

Canadian Distributor: *Crystal Glass & Plastics, Ltd., 130 Queen's Quay at Jarvis Street, Toronto, Ontario, Canada.*

ROHM & HAAS COMPANY
Washington Square
Philadelphia 5, Pa.

Please send PLEXIGLAS color samples and the names of suppliers of:

- ☐ Lighting equipment
- ☐ Dome skylights
- ☐ Daylight Louver Panels
- ☐ Signs and letters

Name _____

Firm _____

Address _____

City _____ Zone _____ State _____

(P7-5)

p/a manufacturers' literature

(Continued from page 151)

and prices for series of lamps and accessories. Also, wiring diagrams, photos. Available on direct request to: General Electric Co., Large Lamp Dept., Nela Park, Cleveland 12, Ohio. $1.75

finishers, protectors

518. Cold-Glazed Concrete Finish, AIA 25-B-39, 4-p. pamphlet giving data on odorless cold-glazed concrete finish for spray application to rigid-wall surfaces such as brick, block, or plaster. Shows unusual decorative patterns obtained by splattering surface with two or three colors. Describes physical characteristics. Vitricon, Inc., 26-02 First St., Long Island City 2, N. Y.

insulation (thermal, acoustical)

631. Vibration Isolation, 4-p. report presenting detail data on methods to prevent transmission of vibration from heating, ventilating, and air conditioning equipment. Gives chart of isolation efficencies in rpm for mountings, bases, and other materials used to reduce vibration effects. Outlines ways and means to isolate centrifugal and reciprocating compressors, air handling units, centrifugal fans and pumps, as well as self-contained units such as boiler and cooling tower. Vibration Mountings, Inc., P. O. Box 117, Elmhurst 73, N. Y.

632. Mineral Wool Insulation, 16-p. booklet outlining advantages of mineral wool insulation for electrically heated homes. Recommends insulation standards. Illustrations show installation of batts, blankets, and vapor barriers under various conditions. Indicates minimum vent openings for attic and basement; provides guide for use of blown mineral wool; discusses perimeter insulation of on-grade concrete slabs. National Mineral Wool Assoc., 2906 Americas Bldg., Rockefeller Center, New York 20, N. Y.

sanitation, plumbing, water supply

730. Good Practice in Sewer Construction, 4-p. bulletin recommending techniques for preparing, back-filling, and finishing sewer-pipe trenches as well as inspecting completed job. Offers formulas and discusses general methods for determining trench width, depth, and slopes. Also, data on bedding. Photos, drawings. Clay Sewer Pipe Association, Columbus, Ohio.

731. Haws Drinking Fountains, AIA 29-H-1, 76-p. catalog displaying wide range of enameled-iron, stainless-steel, and vitreous-china drinking fountains for commercial/institutional installations. Covers recessed, pedestal, and wall-mounted types for single or multiple service. Additional sections show stream-controlled faucets, antisquirt fountain heads, and self-contained electric water coolers. Detail drawings, capacity charts, photos. Haws Drinking Faucet Co., Berkeley 10, Calif.

732. Yeomans Wet-Pit Pump, 16-p. booklet introducing series of self-priming, heavy-duty, wet-pit pumps for handling liquids in unlimited industrial applications. Illustrates components and operating features; shows several pumps designed for specific problems such as handling of highly toxic liquids or liquids containing concentrations of abrasive materials; outlines factors which influence pump selection; provides charts, tables, and graphs to facilitate specification. Photos, engineering details. Yeomans Bros. Co., 1999 N. Ruby St., Melrose Park, Ill.

special equipment

838. Flexalarm Fire-Alarm System, 16-p. bulletin listing 26 standardized panelboard designs and other basic equipment for UL approved fire-alarm signal systems, operating on AC or DC current. Emphasizes flexibility of system which utilizes stock components to allow for variety of arrangements within single system. Shows several complete control-panel assemblies as well as individual accessories: coded and noncoded fire-alarm boxes, automatic

(Continued on page 158)



IT'S HERE!

THE NEW, TRULY MODERN CLEANING SYSTEM

SPENCER Vacuslot...

Here at last is an easily installed, inexpensive and *completely practical* cleaning system that takes advantage of the speed and ease of dry mopping . . . yet assures the dust-free, germ-free sanitation that only *vacuum* can provide.

It's the SPENCER VACUSLOT system . . . the *modern* system that handles *all* cleaning tasks quickly, easily, thoroughly.

ROUTINE MAINTENANCE—In bare floor areas, large dry mops push dirt and litter to the Vacuslot, where high suction Spencer vacuum whisks it away to the centrally-located dirt separator. Mops are *vacuum* cleaned at the Vacuslot. Dust and germs can't escape into the air as they do when mops are shaken.

WET PICK-UP—A light, portable separator tank permits using the Vacuslot system for quick, complete pick-up of accidental spillage or suds from scrubbing machines.

VACUUMING—Carpeted areas, Venetian blinds, stairs, entryways, furniture are quickly and *completely* cleaned with Spencer vacuum. Attaching hose to Vacuslot valves is as quick and simple as plugging into an electrical outlet.

BOILER CLEANING—Spencer vacuuming of boiler tubes provides proven fuel savings up to 20%.



AIDS TO ARCHITECTS

Bulletin 153B describes Spencer Vacuslot Systems. **New Movie** is 20 minute showing in color of Spencer Vacuum Systems in operation. **Engineering Assistance** on preparing specifications and laying out systems is available from your experienced Spencer representative.

The SPENCER TURBINE COMPANY
HARTFORD 6, CONNECTICUT

SPENCER HARTFORD



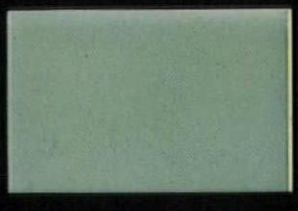
David H. Horn, A.I.A. & Marshall D. Mortland, A.I.A., Architects. Fresno Marble & Tile Co., Tile Contractors.

MOSAIC® *The only complete ceramic tile line from America's largest ceramic tile manufacturer*

Ask your Mosaic Representative for helpful, informative Mosaic literature or write THE MOSAIC TILE COMPANY, Dept.28-34, Zanesville, Ohio.



IMPERVIOUS ELECTRICALLY-CONDUCTIVE CERAMIC MOSAIC FLOOR TILE



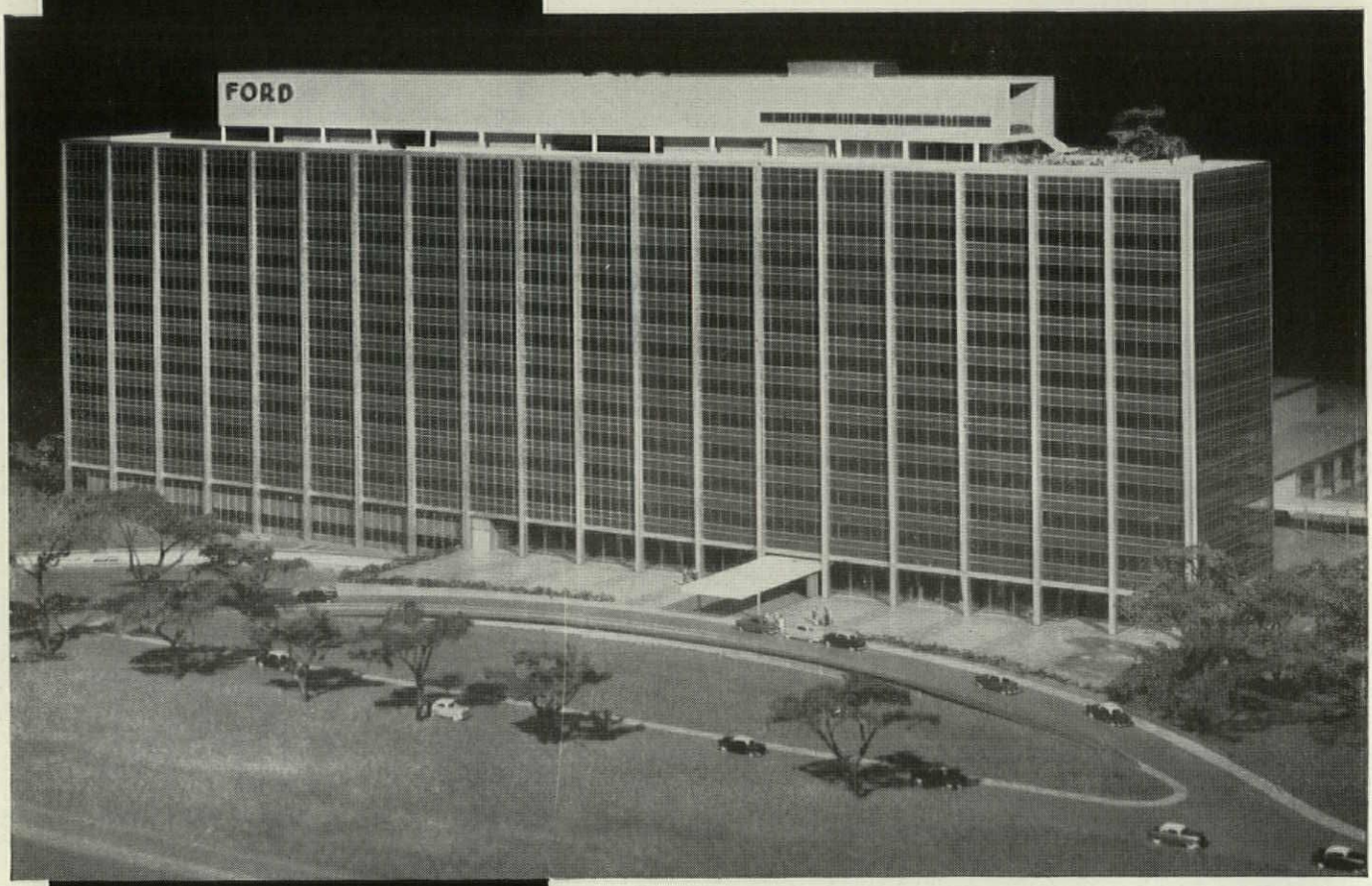
GLAZED WALL TILE



Showrooms, Warehouses, Factories from Coast to Coast . . . WAREHOUSES & SHOWROOMS: Atlanta, Baltimore, Boston, Chicago, Dallas, Denver, Detroit, Fresno, Greensboro, E. Hartford, Hempstead, Hollywood, Miami, Minneapolis, New Orleans, N. Hollywood, Philadelphia, Portland, Rosemead, Salt Lake City, San Diego, San Francisco, Seattle, Tampa, Washington, D.C. SHOWROOMS: Milwaukee, New York. OFFICES: Birmingham, Buffalo, Cincinnati, Kansas City, Oklahoma City, Pittsburgh. FACTORIES: Corona, El Segundo, Ironton, Jackson, Little Rock, Matawan, Zanesville.

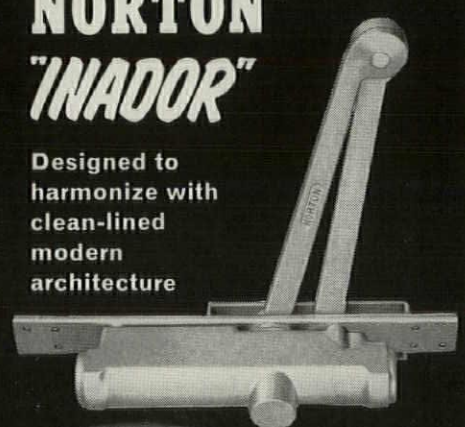
A continuous series of distinguished office buildings, schools, churches, hospitals and industrial structures using NORTON DOOR CLOSERS

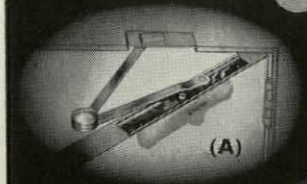
Skidmore, Owings & Merrill Architect — Bryant & Detwiler General Contractors

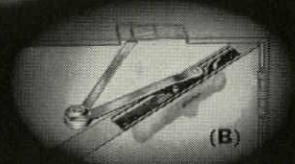


NORTON® "INADOR"

Designed to harmonize with clean-lined modern architecture





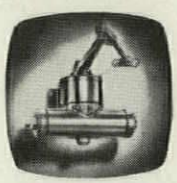


Available with (A) regular arm or (B) holder arm . . . 4 sizes to satisfy all requirements.

900 NORTON INADOR® CLOSERS INSTALLED IN FORD'S DISTINCTIVE NEW CENTRAL OFFICE BUILDING

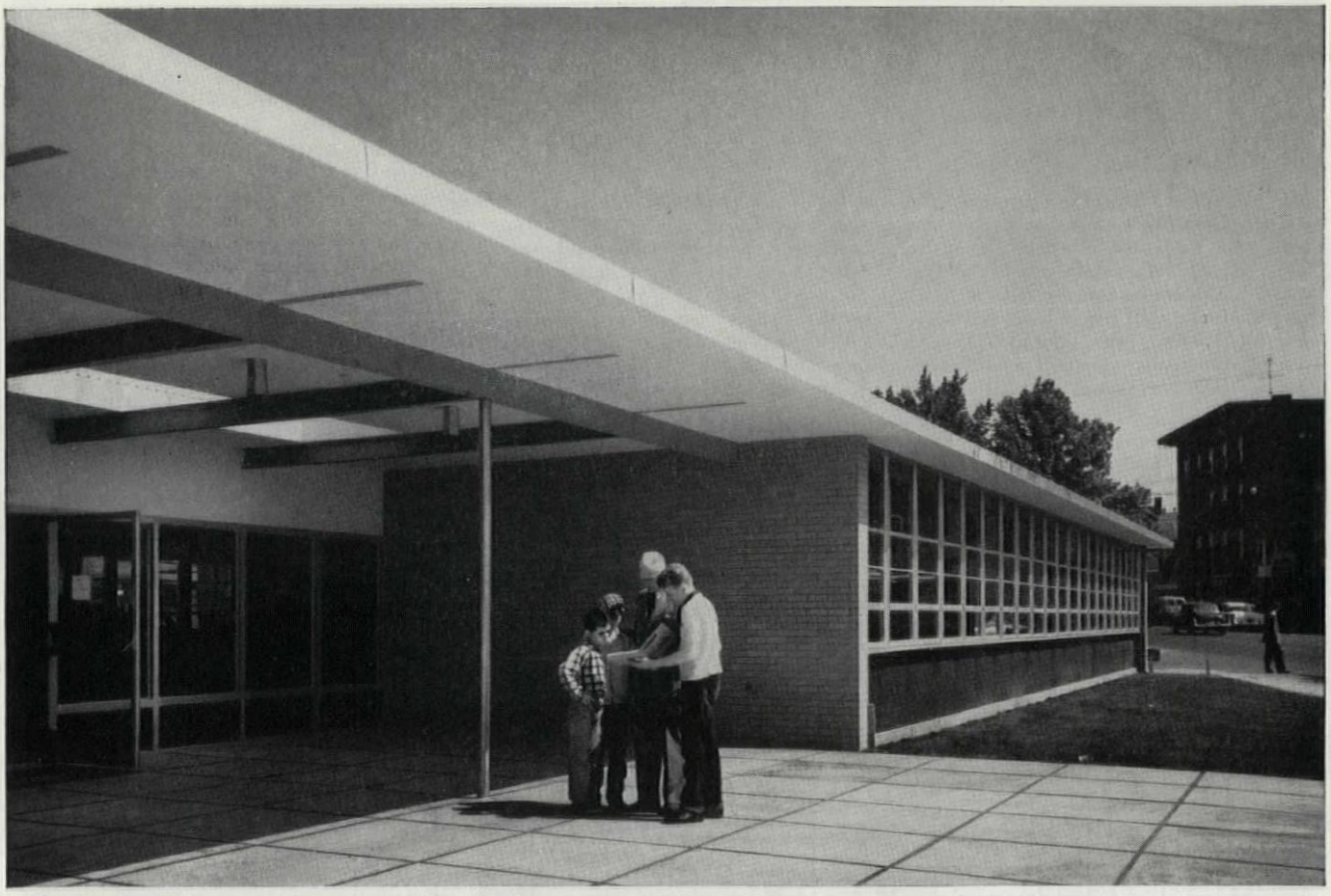
The primary reason for such extensive use of INADOR® concealed type closers here is, of course, that they are so completely in harmony with the clean-lined modern styling of the doors they serve. No less important, however...their compact, fully concealed mechanism packs all the rugged dependable power found only in a true, liquid-type closer plus the reliability, low maintenance and precision workmanship common to all *Norton Door Closers*. Current catalog gives complete data on all models. Write for it today if you don't already have one.

A complete line of Norton Surface type closers is available for installations where concealment is not essential.



NORTON® DOOR CLOSERS

Dept. PA-17, Berrien Springs, Michigan



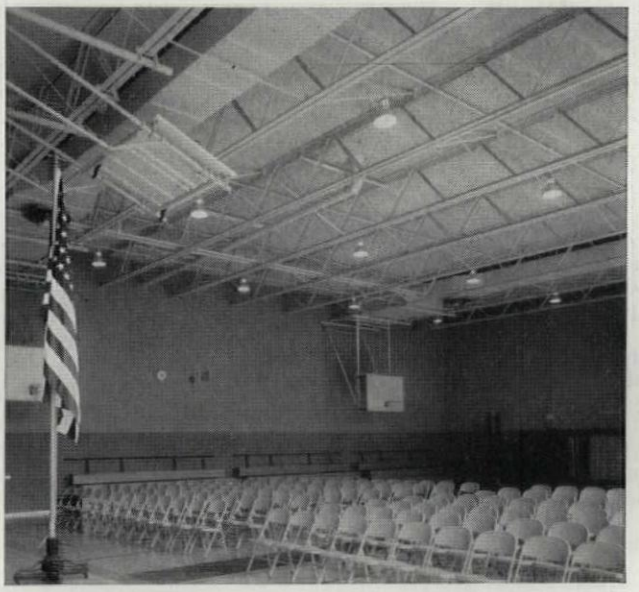
Albany Boys' Club was designed by office of Henry L. Blatner, architect, of Albany. General contractor was McKenna Construction Co., also of Albany.

BOYS' CLUB IN DOWNTOWN ALBANY BUILT ECONOMICALLY WITH STEEL JOISTS

Because the two buildings used by the Boys' Club of Albany, N. Y., were more than fifty years old, it was decided to replace them with two new ones, both to be located in the congested city areas which they serve. The first of these new buildings has now been completed: a highly functional, but economically constructed, one-story clubhouse designed to fit the available site.

The new building contains a large gymnasium, crafts and hobby rooms, shower and locker facilities and a library. Of steel-frame and face-brick construction, it was built at minimum construction cost.

One factor in the low construction cost was the use of Bethlehem Open-Web Steel Joists. The joists arrived at the job site fully fabricated, ready for instant placing without interrupting construction schedules. Installation of piping and wiring was simplified because conduits and ducts could be run in any direction, through the open webs. Steel joists contribute to the rigid, permanent construction of the building, a factor which will hold future maintenance to a minimum. Used in combination with poured ceiling and concrete floor slabs, the steel joists also contributed to fire-safety.



Bethlehem Longspan Joists span the gymnasium, giving uninterrupted, column-free space below.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation
Export Distributor: Bethlehem Steel Export Corporation

BETHLEHEM OPEN-WEB STEEL JOISTS

BETHLEHEM STEEL

p/a manufacturers' literature

(Continued from page 154)

fire detectors, horns, bells, gongs, and chimes. The Gamewell Co., Newton Upper Falls 64, Mass.

839. Sectional Cafeteria Counters, 16-p. catalog presenting sectional units for complete cafeteria counter assemblies. Illustrates variety of stainless-steel hot-food tables; refrigerated or heated sections; water stations; cold pan, silver, and shelving units. Shows fully equipped counter arrangement using standard components. Provides scale drawings of sections for planning individual layouts. Tabulated dimensions. Southern Equipment Co., St. Louis 16, Mo.

840. Magic-Chef Commercial Cooking Equipment, AIA 29-F-3, 8-p. publication containing data on ranges and ovens for restaurants. Shows heavy duty ranges, baking and roasting ovens, griddles, and broilers; also illustrates sectional units which can be added as needed. Description and dimensions for each piece of equipment. Commercial Sales Dept., Magic Chef, Inc., 3201 Harvard Ave., Cleveland 5, Ohio.

★ **Atomic Plants and Reactors,** 12-p. publication offering visual and descriptive data on nuclear power plants, reactors, and components developed to compete commercially with conventional power stations in remote locations or where chemical fuels are costly. Features five-page insert of transparent overlays showing details of typical reactor system. In addition, photo of plant model shows how equipment is arranged to prevent radioactive exposure. Includes drawings of pressurized water reactor cycle and reactor core as well as nuclear-plant heat balance diagram. Available free on request to: Alcoa Products, Inc., P. O. Box 1065, Schenectady, N. Y.

841. Methods for Plant Layout, 44-p. catalog showing materials and methods for making plant layouts or scale models without preliminary drafting. Describes two-dimensional system using grid sheets, templates, and tapes to create layout from which blueprints are made in usual manner. Drawings show available replicas of piping sections with brass-pin connections; pumps; compressors; ladders and stairs; laboratory furniture; refinery equipment and even scale figures for building miniature assembly lines and fully equipped model plants to facilitate visualization. F. Ward Harman Associates, Halesite, Long Island, N. Y.

842. Supervisory DataCenter, 20-p. booklet presenting technical data on electronic system for single-man central supervision of heating, ventilating, and air-conditioning equipment throughout entire multi-story building. Full-page drawings, representing actual panelboard design, show: color-coded schematic process diagrams of entire air, chilled water, and condenser water systems; recording devices; remote-control adjustment knobs; pilot lights; and indicators which pinpoint source of trouble as it arises. Minneapolis-Honeywell Regulator Co., Minneapolis 8, Minn.

YOU'LL FIND IMPORTED CASTELL



America is taking giant forward steps — and imported CASTELL drawing pencil is an important partner in this progress.

Firmly held in the skilled hands of designers, engineers and draftsmen, smoother, stronger, graphite-saturated CASTELL is laying it on the line—producing the creative concepts and the mountains of tracings for our amazing industrial development.

Seasoned Pros go for CASTELL, because it produces cleaner tracings, sharper prints — *more* prints than any other pencil in the world. CASTELL tracings survive hundreds of trips through the blueprint machine without bleeding.

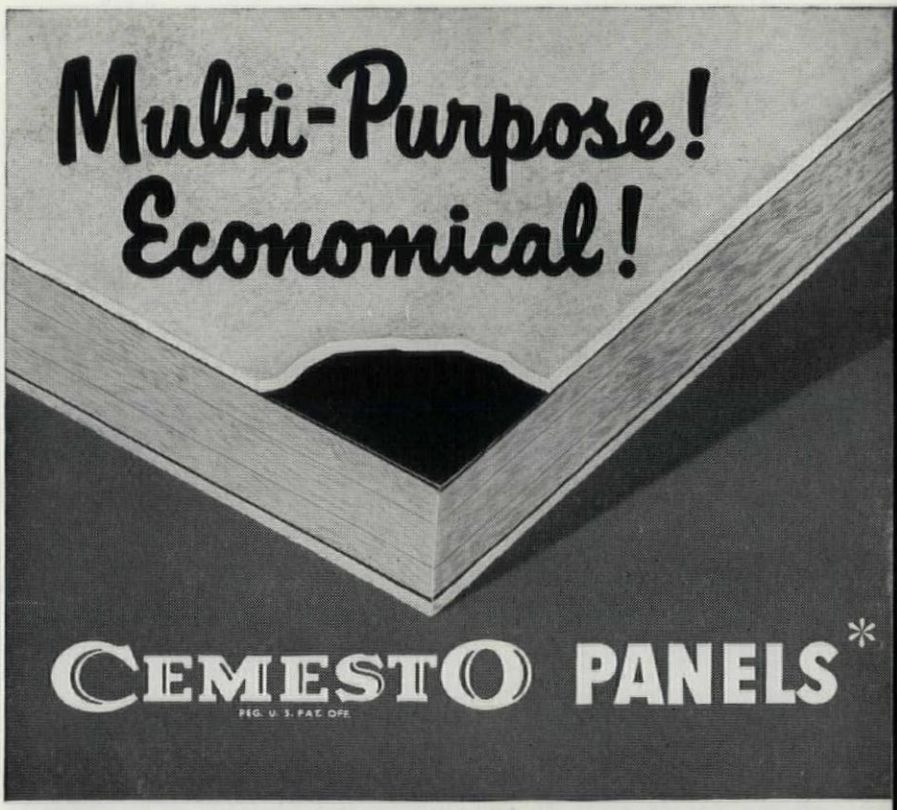
There's no reason why *you* shouldn't enjoy CASTELL. Whatever brand you use, you are *paying* for CASTELL —so why not *get* CASTELL. Your Dealer has an interesting story to tell you about CASTELL.

A.W. FABER-CASTELL
PENCIL CO., INC. NEWARK 3, N. J.

surface materials

947. Farlite Laminated Plastics, 4-p. four-color leaflet on decorative laminated-plastic surfacing material for tables or counters. Describes properties of standard 1/16″ thick sheets. Photos show available colors and patterns which are sealed under translucent overlay. Also shows fabricated countertops and three types of core construction. Farley & Loetscher Mfg. Co., Dubuque, Iowa.

948. Loxit Complete Chalkboard System, AIA 35-B-11 (B.B. 1956), 12-p. bulletin containing information on system which includes tackboards, chalkboards, sliding boards, trophy cases, and frames. Describes chalkboards made of wood fiberboard, cement-asbestos hardboard, and porcelain-enameled steel; shows compressed cork tackboards available in wide color range. Details show installation of boards in frames; specifications. Loxit Systems, Inc., 1217 W. Washington Blvd., Chicago 7, Ill.



QUICKLY-ERECTED CURTAIN WALLS FOR ALL TYPES OF BUILDINGS

Do 3 Jobs in 1! Cemesto Panels provide a *structural wall* . . . thermal *insulation* . . . maintenance-free incombustible *finished surfaces* inside and out. Save on heating and air conditioning costs. They blend harmoniously with brick, stone, wood, glass, and metals. May be worked with ordinary tools on the job, or pre-cut to required special sizes at the mill for faster application. Panels fasten to steel framing with metal accessories, or to wood framing with nails or screws.

Attractive Extruded Aluminum Accessories harmonize with gray Cemesto Panel surfaces to lend beauty to curtain walls. Built-in Neoprene gaskets assure weather tightness.

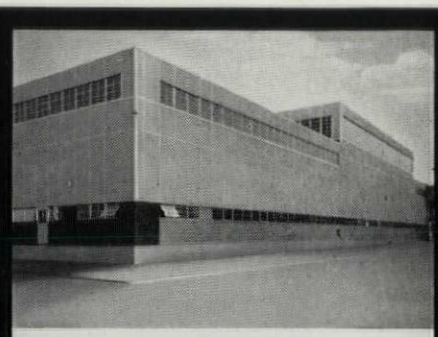
Architects specify this remarkable all-purpose building material for *curtain walls, roof decks,* and *movable interior partitions.* Write today for New File 5500 . . . 52-page simplified data book on design and application details of Cemesto Structural Insulating Panels. The Celotex Corporation, Dept. PA-17, 120 S. LaSalle St., Chicago 3, Ill.

Another Famous CELOTEX *Product*

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STRUCTURAL INSULATING PANELS

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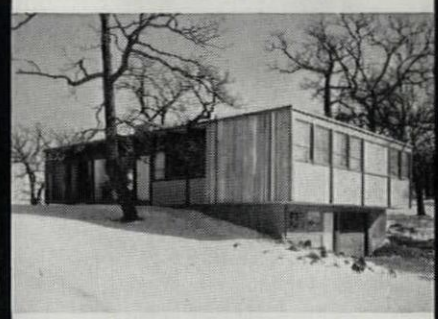
for INDUSTRIAL BUILDINGS



for COMMERCIAL BUILDINGS



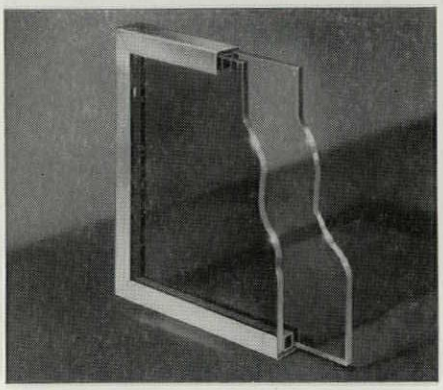
for SCHOOL BUILDINGS



for RESIDENTIAL BUILDINGS

***Cemesto Panels** are strong, rigid, permanent structural insulating units. Their core is Celotex cane fiber insulation board effectively protected against dry rot and termite attack by the exclusive Ferox® Process. Non-combustible cement-asbestos facings are bonded to both sides of this insulating core by a moisture-proof adhesive. Cemesto Panels resist fire, weather, and wear, need no painting or maintenance.





SOLEX-TWINDOW® offers all the advantages of Twindow—the windowpane with insulation built in—plus a means for reducing the strong heat and brightness of intense sunlight. The sectional view here shows the composition of a Solex-Twindow unit. The outer pane is Solex Plate Glass, the inner light clear-vision Plate Glass. Between these two panes is a sealed-in air space. The entire unit is enclosed in a stainless steel frame which protects the seal and glass edges and makes handling safe and easy.

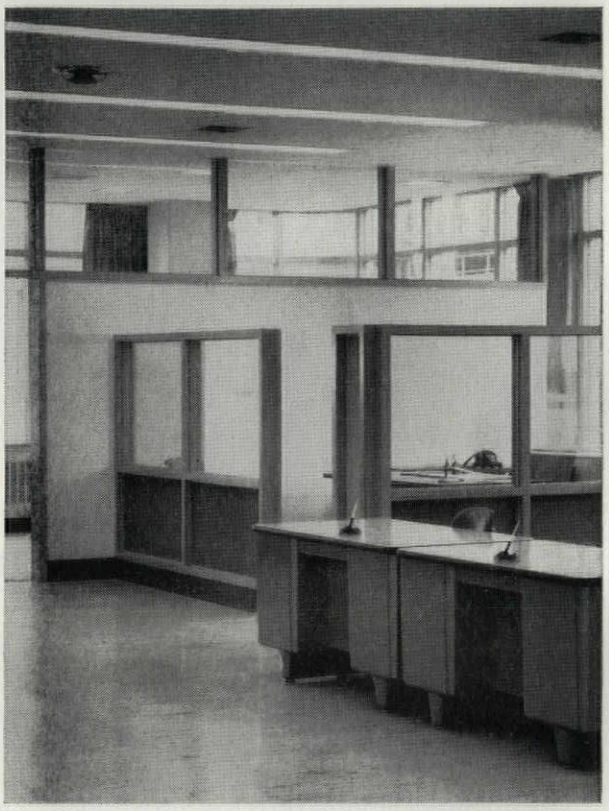
Design it better with

PITTSBURGH GLASS

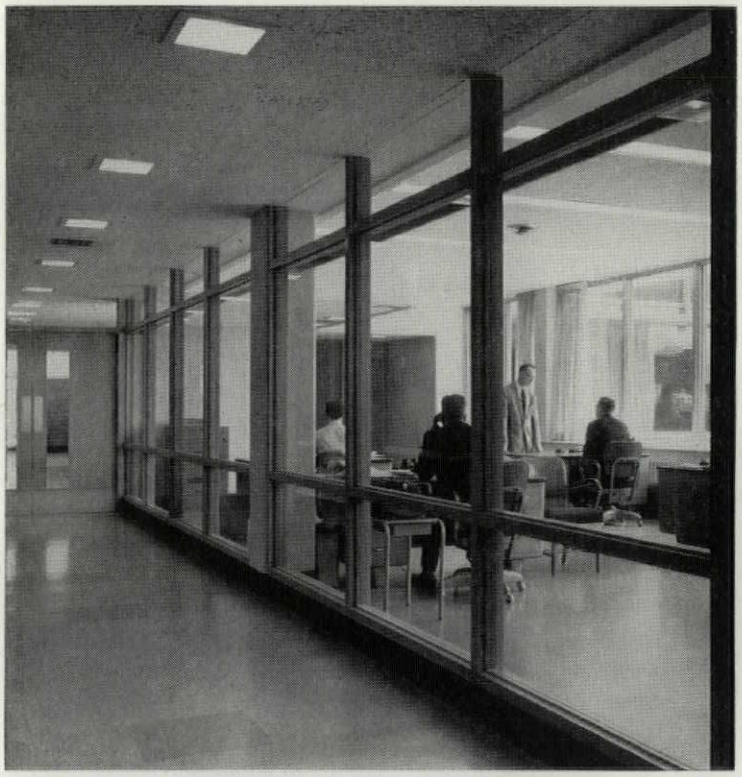
Lutheran Brotherhood's New Home Office Building in Minneapolis, Minnesota, features

SOLEX-TWINDOW INSULATING GLASS

One of the Twin Cities' first completely modern, air-conditioned office buildings, the Lutheran Brotherhood Life Insurance Society home office building embodies advanced thinking in both community and employee facilities, as well as in architectural design and mechanical equipment. A feature of this building is its "curtain wall." For the vision areas in this "skin," *Pittsburgh's* Solex-Twindow Insulating Glass was selected. These units assure more comfortable interiors for the building's occupants, for they reduce solar heat and glare and keep offices cooler. Moreover, Solex-Twindow adds to operating economy, because less load is placed upon the air-conditioning system. Perkins & Will, Architects-Engineers, Chicago, Illinois, and White Plains, N. Y.



THIS VIEW of one of the departments of the New Lutheran Brotherhood building shows how the various offices gain visual spaciousness and bilateral daylighting through floor-to-ceiling partitions, glazed with Pittsburgh Polished Plate Glass.



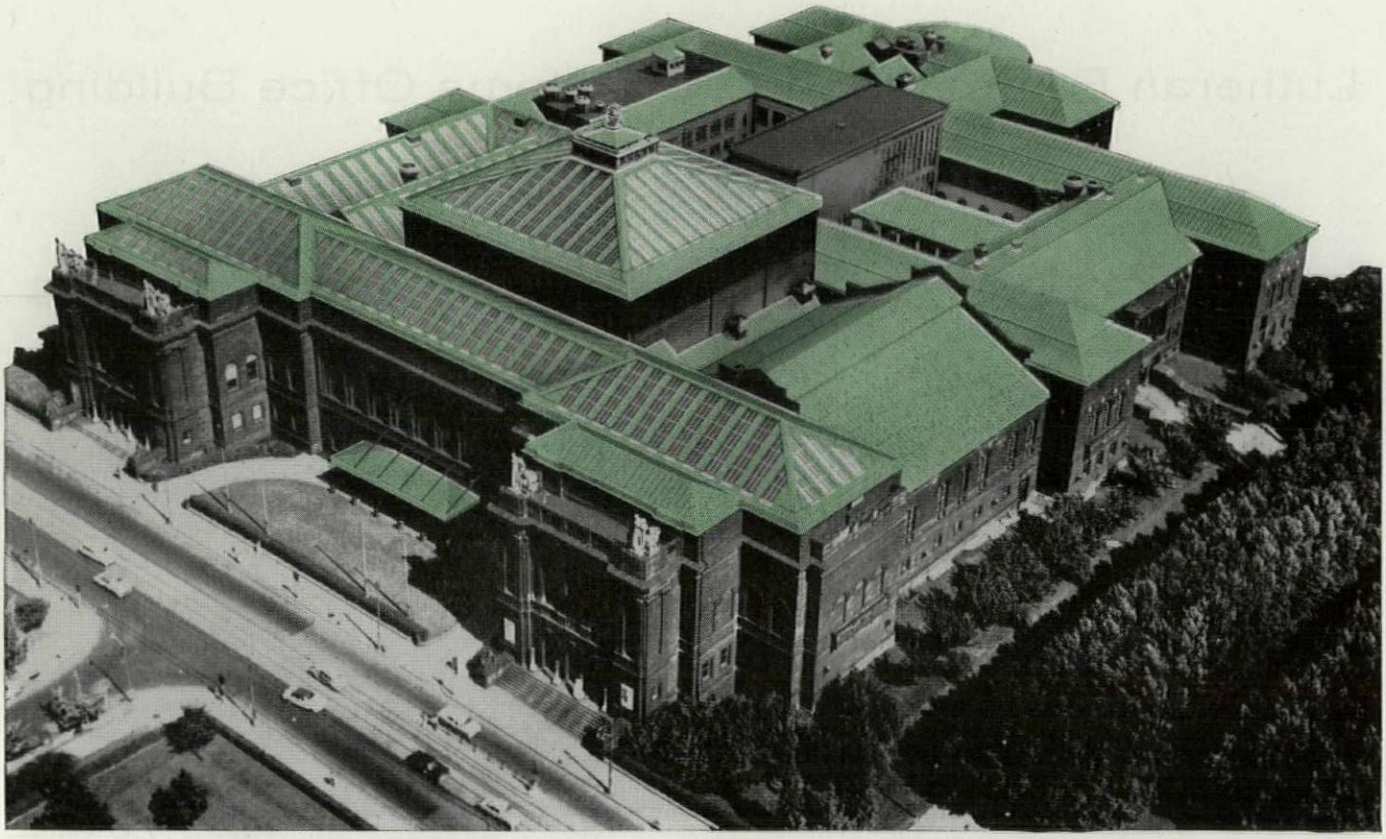
PRIVATE AND SEMI-PRIVATE offices in this building acquire well-distributed daylighting through partitions glazed with Pittsburgh Polished Plate Glass.

Your Sweet's Architectural File contains detailed information on all Pittsburgh Plate Glass Company products . . . Sections 7a, 13e, 16d, 21.

PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS · FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED



Fabricator and Installer: Overly Mfg. Co., Greensburg, Pa.
Architect and Engineer: Charles M. and Edward Stotz, Pittsburgh, Pa.

FAMED CARNEGIE INSTITUTE gets handsome, low-cost green roof of Alcoa Aluminum

A Pittsburgh landmark, the internationally known Carnegie Institute and Library, is looking its attractive best these days. A new four-and-one-half-acre roof of Alcoa® Aluminum now covers the 60-year-old art treasure house. Not only is the new roof beautiful but it provides lasting protection for the priceless paintings, museum pieces and other works of art exhibited in the building.

The cost of the aluminum roof was far less than the cost of copper. It weighs less than a third as much as the old roof of Spanish tile. It is designed to withstand winds of hurricane force without harm. Mechanically interlocking joints made it possible to permanently seal each section of the roof as it was applied, preventing weather damage to the interior.

Overly Manufacturing Company, Greensburg, Pa., fabricated and installed the roof, using the patented Overly type "B" batten roofing method. It is permanently watertight and should last as long as the building. The color is a soft, harmonious green approximating the patina of aged copper. Known as Alodine*, the long-lasting color finish is chemically a part of the metal surface. A large portion of the new roof consists of Overly-Goodwin Puttyless Skylights.

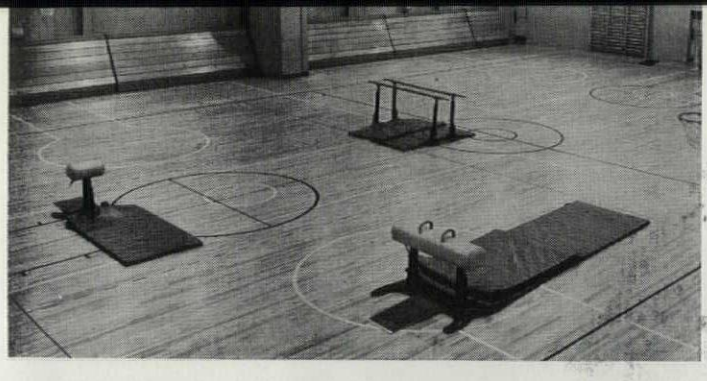
If you are looking for beauty, permanence and low cost in a roofing material, you'll find all these features in Alcoa Aluminum. See the architectural consultant at your nearest Alcoa sales office or write Aluminum Company of America, 1890-A Alcoa Building, Pittsburgh 19, Pennsylvania.

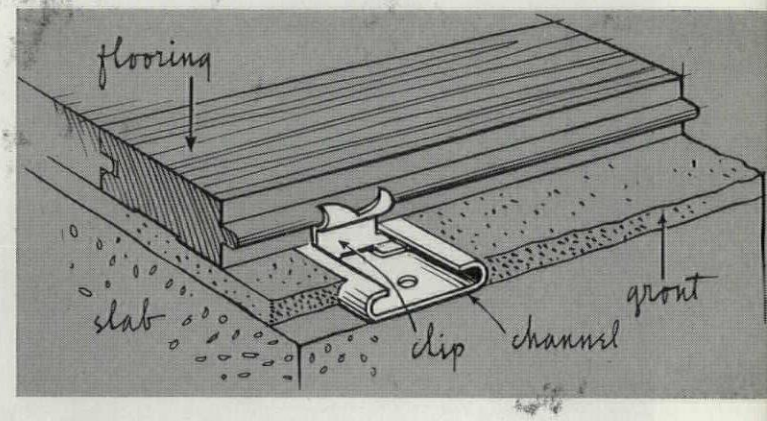
*Registered trademark of American Chemical Paint Company

ALCOA ALUMINUM
ALUMINUM COMPANY OF AMERICA ©ALCOA

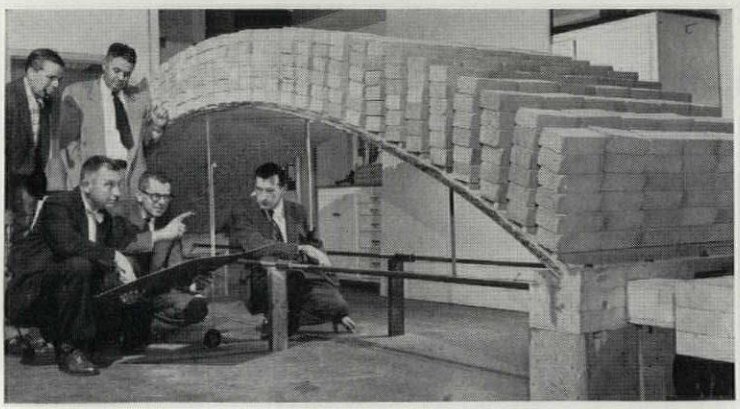
Your Guide to the Best in Aluminum Value

THE ALCOA HOUR
— Television's finest live drama, alternate Sunday evenings

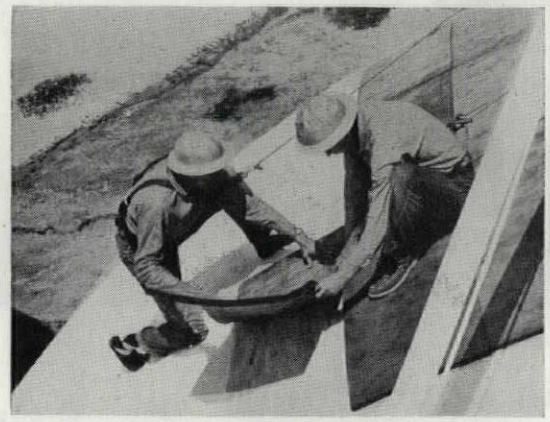




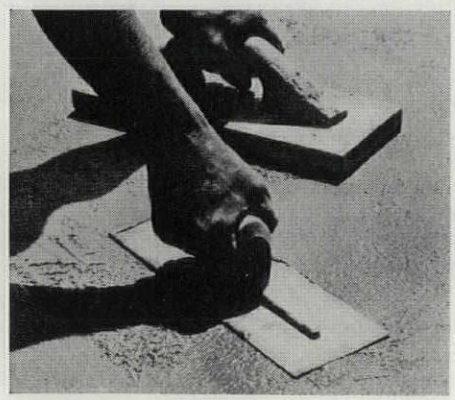
Mechanical system for applying wood flooring to concrete slab eliminates expansion joints, wood sleepers, and subfloors in fieldhouses, gymnasiums, and other school rooms (above *and* right). *Flooring is anchored directly to slab by metal clip which interlocks in a channel with upturned edges. As flooring is driven up, boards are simultaneously locked together and to channel. Loxit Systems, Inc., 1217 W. Washington Blvd., Chicago 7, Ill.*



This fir-plywood, arched, sandwich panel (left) *can easily bear weights up to four times the design load; 7500 lb of bricks produced only .38" deflection. Panel unit consists of two scarf-jointed plywood panels approximately 17'x4' which are bonded together with an impregnated honeycomb-paper core. Tacoma Architect Robert Billsbrough Price will use these "stressed-skin panel vaults" to roof a gymnasium measuring 96'x72'. Six vaults needed to span the 96' distance will rest on glue-laminated girders. Douglas Fir Plywood Assn., Tacoma 2, Wash.*



Flexible, foamed-plastic sheet insulation adapts itself to curved or irregular surfaces with little or no fitting or cutting (right). *"Armaflex" is particularly adaptable to insulating large tanks, irregularly shaped vessels, oversize pipes, and refrigeration and air-conditioning equipment. Will withstand temperatures as high as 160F, has a k-factor of 0.28 at 75F mean temperature, and a water-vapor permeability of 0.1 perm. Available in thicknesses of ⅛", ¼", ½", and ¾" in sheets 30"x36". Armstrong Cork Co., Lancaster, Pa.*



Hand-rubbed turntable mount (below) *is available in blond korina, mahogany, walnut, or ebony finishes. Distinguished appearance makes unit especially suitable where mount is in full view. Record-player mounting board rests on ½" latex-impregnated-felt strip to eliminate transmitted vibration and resultant feedback. Entire unit supported by adjustable mounting screws. Ingalls Electronics Co., 30 W. Putnam Ave., Greenwich, Conn.*



Latex concrete topping (above) *which bonds to any clean, stable surface (even to one as smooth as glass) can be used for patching cracks in any concrete or masonry surface, for repairing stone or slate, for repairing brick or mortar joints, and smoothing asphalt-mastic surfaces. Can be applied as thin as 1/16" or as thick as needed. The Camp Co., 6958 S. State St., Chicago 21, Ill.*



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Minneapolis, Minn.

Contractor:
DEAN L. WITCHER, INC.
Minneapolis, Minn.

Dealer:
SWANSON BROS. CO.
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"all concerned are pleased . . ."

"My firm has become a consistent user of Lehigh Mortar Cement in recent years" reports Mr. Dean L. Witcher, general contractor for the new First Christian Church in Minneapolis, Minnesota. And here are his reasons:

"Masonry Foreman Axel Lindborg is high in his praise of your product. He is especially proud of the workability of Lehigh Mortar, which in turn improves our efficiency by increasing production on the wall.

"Architects and owners with whom we have worked have remarked at the fine appearance of our masonry walls.

"We have found Lehigh Mortar to be equally suitable for both summer and winter construction. It is economical to use and *all concerned are pleased* with the completed jobs."

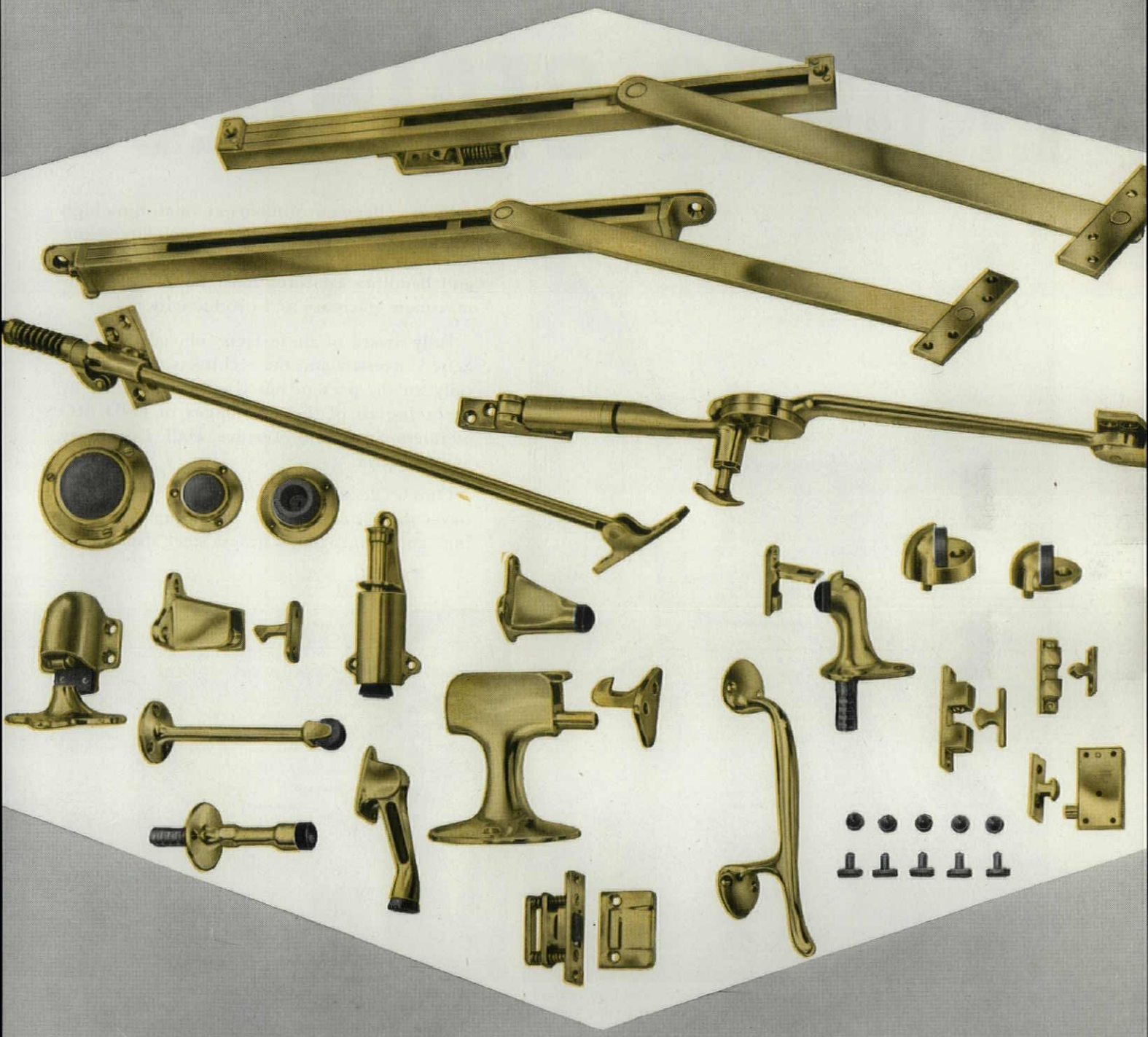
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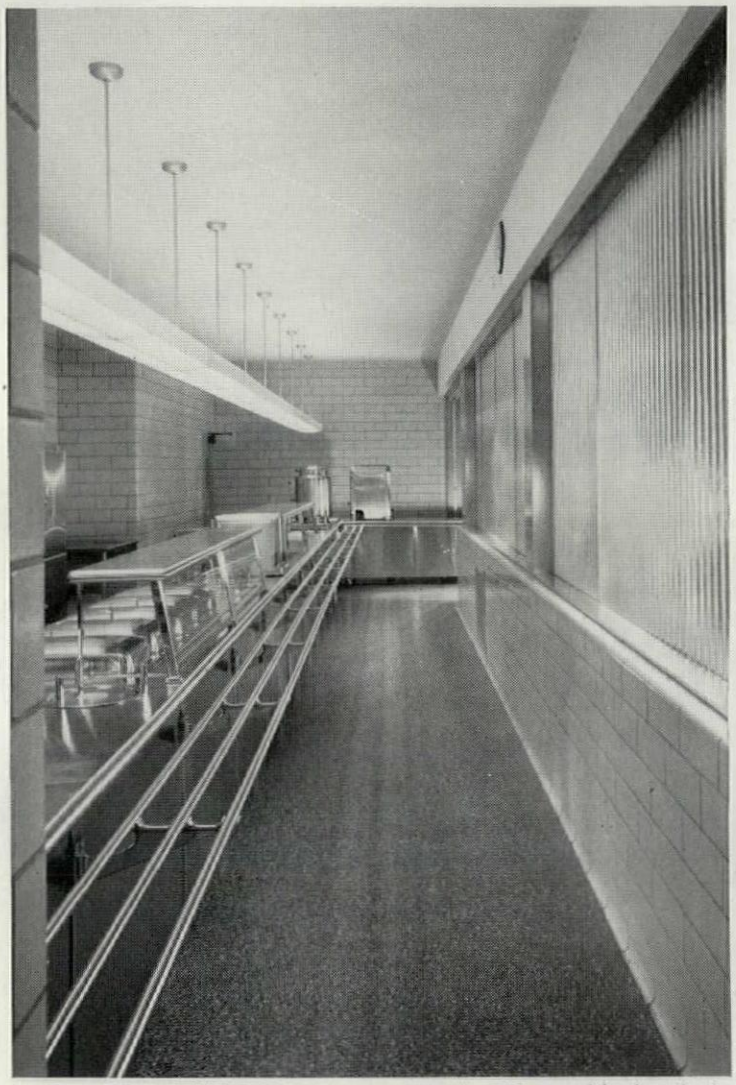
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ENDURO STAINLESS

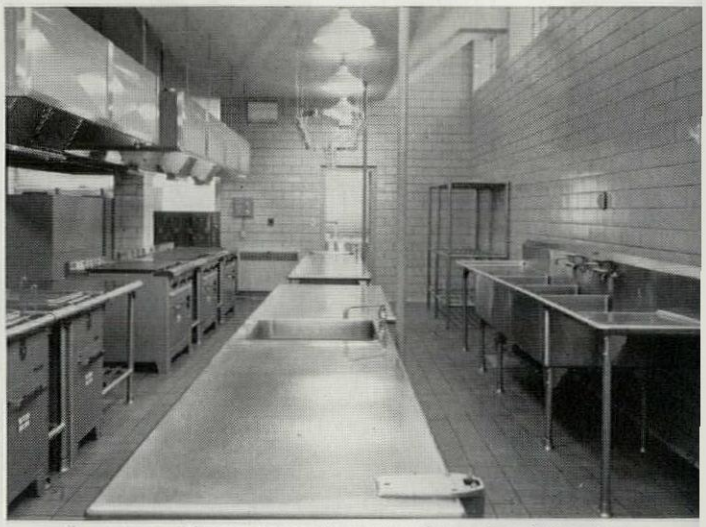


Terrace Hall Cafeteria is the largest all-stainless steel food service in Northeastern Ohio. ENDURO is used throughout for serving lines and kitchen. Two separate units can serve 4,500 meals a day.

With college enrollments at an all-time high and expected to go even higher, student feeding has become "big business." Food preparation and handling facilities must be designed for maximum efficiency and productivity.

Fully aware of these facts, officials of Kent State University and the architects planned not only for the present but also for the future by designing all of the advantages of ENDURO Stainless Steel into Terrace Hall Dormitory and Cafeteria.

Otto Pedersen, Director, Food Service, believes that in addition to providing labor-savings and longer life, stainless steel also creates



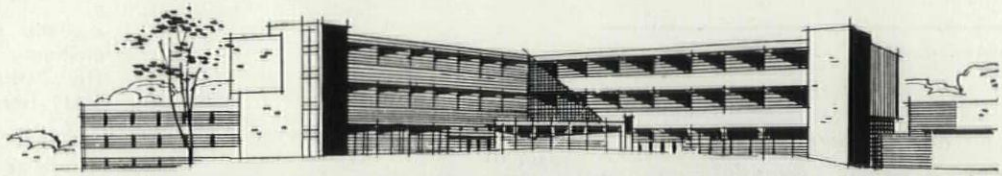
Range tops, sinks, storage racks, work surfaces, deep fat cookers, ventilating hoods and meat hangers are fabricated from ENDURO Stainless Steel. Equipment is mounted on legs which permit easy cleaning and allow air circulation. Well-defined, open aisles maintain smooth traffic flow.

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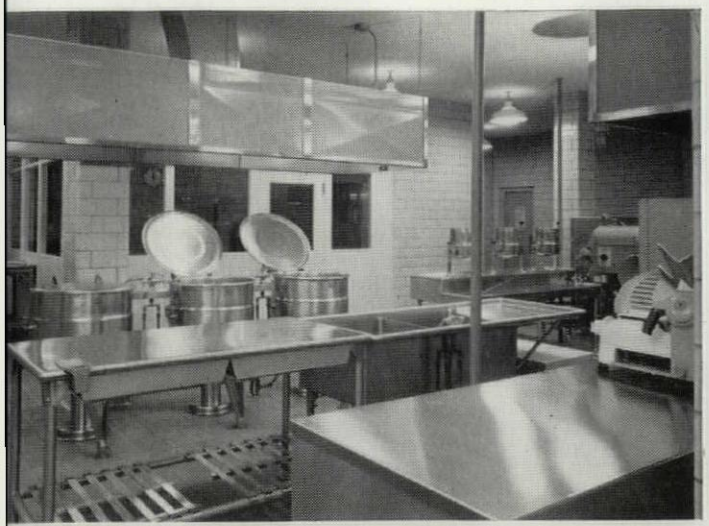
Terrace Hall, Kent State University, Kent, Ohio; *Architects*—Fulton, Krinsky & Dela Motte—Cleveland, Ohio; *Kitchen Contractor*—C. F. Thorsson—Cuyahoga Falls, Ohio

STEEL...

a strong morale factor in the employees' attitude toward sanitation and cleanliness. This factor, in itself, more than offsets any increased initial cost over other materials.

Your role in planning and designing food-handling facilities is rapidly increasing in scope. Republic offers you the services of its metallurgical and engineering staffs in helping you obtain the best possible use of ENDURO Stainless Steel.

Sweet's Architectural File, section $\frac{6c}{Re}$ has all the facts on architectural applications of ENDURO Stainless Steel. Or send coupon for more information.



ENDURO Stainless Steel equipment has smooth, rolled edges and, wherever possible, stands away from the wall to help prevent accumulation of dirt, etc. Flush tile floors are well-equipped with stainless steel drains to meet sanitary requirements.

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$3.54 SAVING PER OPENING on fuel and air-conditioning costs in New York's stainless-steel-clad Socony Mobil Building is provided by Truscon's stainless steel reversible window. Tests have proved the window 80 times more resistant to air leakage than allowable industry standards. Truscon® Engineers will help you adapt this window to your requirements. Write for fact and specification file.



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Name_____ Title_____

Company_____

Address_____

City_____ Zone____ State_____

p/a products

(Continued from page 165)

air and temperature control

"Advance" Air Conditioners: series of room air conditioners features newly designed refrigeration unit, 1450 rpm motor, and oversize blower wheel which delivers conditioned air at 900 fpm. Compact cabinets can be installed into windows as narrow as 24"; units, equipped with single-knob weather dial control and automatic thermostat, measure 22 3/16" x 24½" x 14¼". Series consists of ¾-hp and 1-hp capacity units. Mitchell Mfg. Co., Div. of Cory Corp., 2525 N. Clybourn Ave., Chicago, Ill.

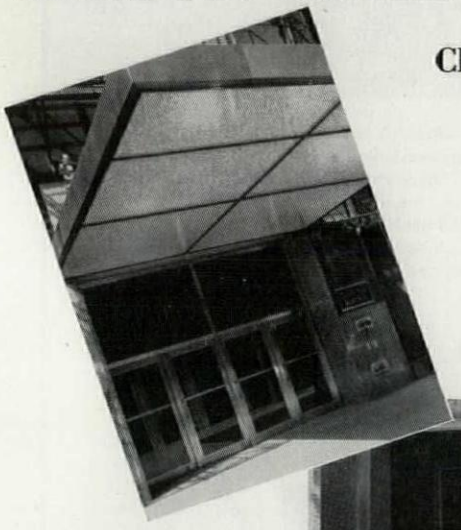
construction

Duo-Jobmaster Stud Fastener: power-actuated, trigger-action stud fastener features interchangeable barrels to accommodate either ¼" or ⅜" studs and can be adjusted for 10 driving strengths to penetrate hardest concrete or 1" mild structural steel. Fastening tool, used to set both threaded studs and drive pins, is available in 12" or 15" models for light-, medium-, and heavy-duty work. Ramset Div., Olin Mathieson Chemical Corp., 12117 Berea Rd., Cleveland 11, Ohio.

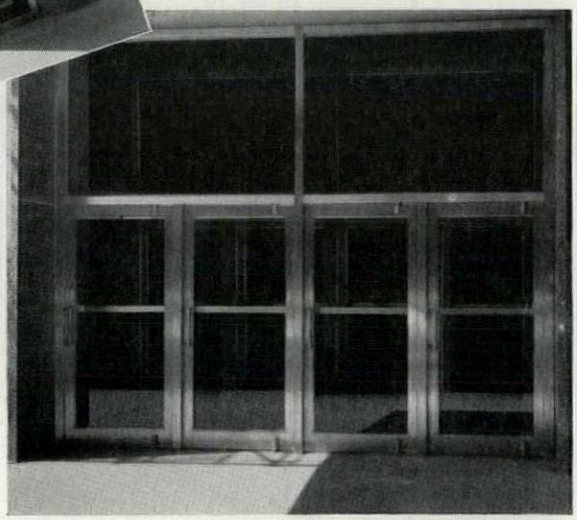
"Special" Harborite Plywood: in response to demands of construction field and industry, manufacturer has made overlaid fir plywood available in new low-cost grade. Plywood, composed of "C" grade veneer core and resin-impregnated overlaid face is claimed to have same surface resistance to wear, weather, and water as manufacturer's "B" grade veneer product. With overlays on one or two sides, new plywood is recommended for soffits, gable ends, siding, fences, and garage doors. Harbor Plywood Corp., Aberdeen, Wash.

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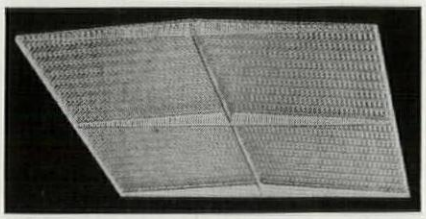


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Prismalume Controlens: prismatic, fluorescent-light diffusing unit *(above)* for two-ft wide troffer or luminous ceiling installations provides high footcandle levels without glare. Decorative design, using conical prismatic elements in concave arrangement with longitudinal and transverse fins, will complement contemporary interiors of offices, stores, and auditoriums. Holophane Co., Inc., 342 Madison Ave., New York 17, N. Y.

insulation (thermal, acoustical)

Noise Reduction Panel: new low-cost sound-absorbing, soundproof panels are recommended for construction of offices in noisy areas, machinery enclosures, and acoustic test rooms. Easy-to-cut material can be installed as ceiling-high or free-standing partitions with tempered hardboard or asbestos-cement board exterior and perforated aluminum or hardboard interior surface. Standard 4' x 8' panels are 2½" thick and available with steel supporting studs, channels, stiffening rails, fastening devices, soundproof doors, windows, and other accessories. Elof Hansson, Inc., 711 Third Ave., New York 17, N. Y.

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Inter-Lock File: specially designed for convenient and safe storage of tracings or blueprints, crush-proof, dust-proof, lightweight file units dove-tail together to form self-supporting solid blocks which may be added to or rearranged. Tubular interior of file units is locked between die-cast ends; spring-loaded, hinged door provides slot for index cards. Units measure 2½" across and may accommodate drawings from 30" to 60" long. Eugene Dietzgen Co., 2425 N. Sheffield Ave., Chicago 14, Ill.

(Continued on page 172)

VERSATILE CONCRETE MASONRY

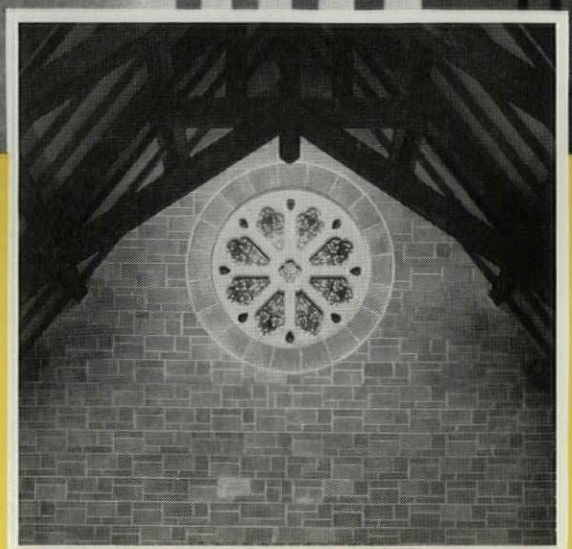
adds grace to the modern church
...dignity to the traditional

Mount Olive Lutheran Church, Des Moines, Iowa—Brooks & Borg, Architects

Concrete Masonry is especially useful to architects for church buildings because of the wide range of shapes and sizes available and is adaptable to any architectural style.

Churches nearly always require large exposed wall areas. Concrete Masonry does triple duty here. It offers the lowest in-the-wall cost of all building materials. Its acoustical properties sound-condition the church—its insulating properties help keep the church comfortable.

Ask your local block producer, a NCMA member, for a copy of the booklet "Concrete Masonry in Church Construction."



Flossmoor Community Church, Flossmoor, Illinois—Hugo C. Haeuser, Architect

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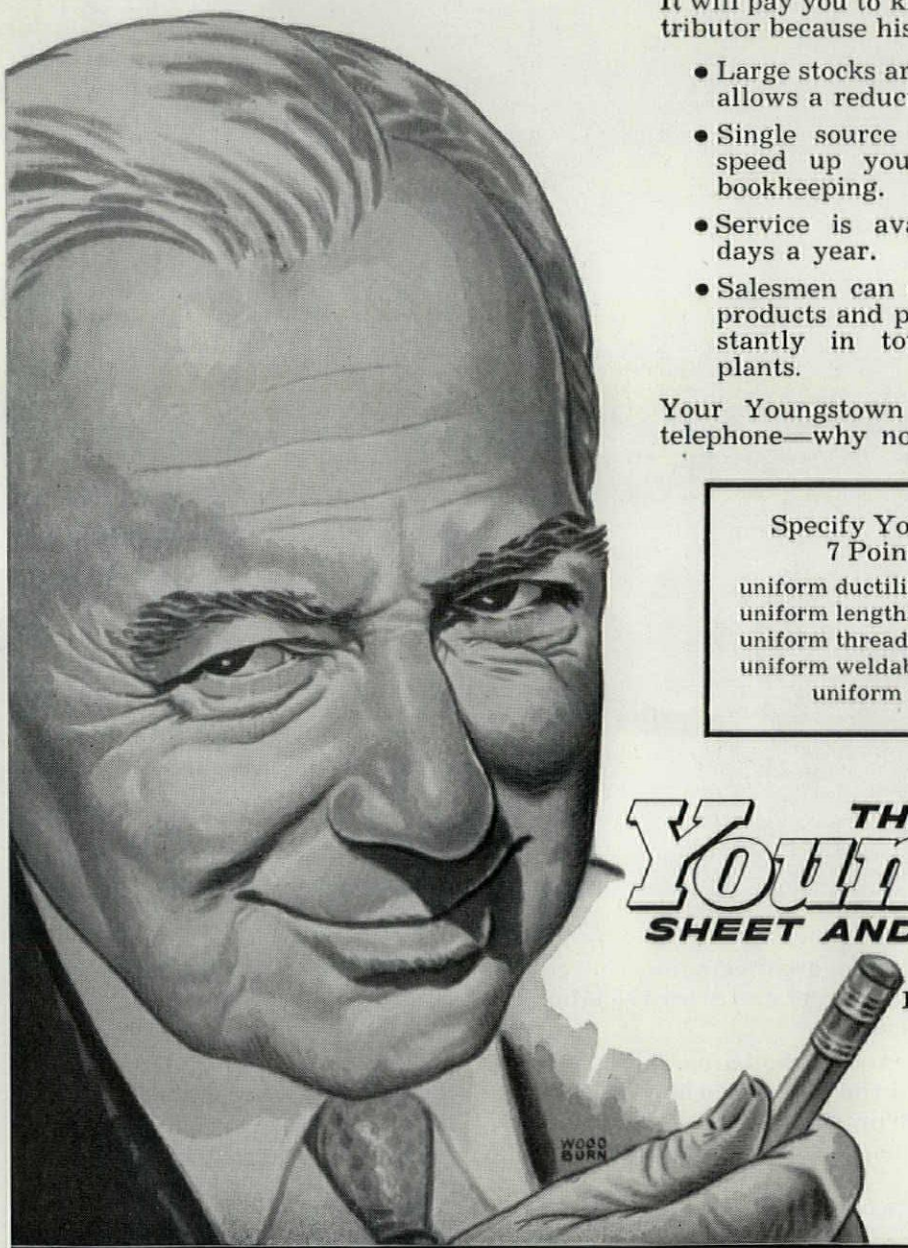
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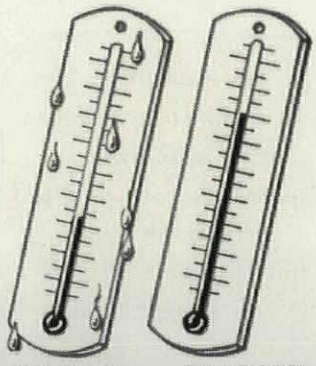
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WILSON AIR-COR ROOF PANELS FIGHT WEATHER *with weather-air*

By providing air circulation throughout the roof of a structure, Wilson Air-cor uses Nature's own *weather-air* to overcome the problems of weather. Regardless of the difference between inside and outside temperatures—Nature's own way turns out to be the surest protective system.

Wilson Air-cor banishes the problem of condensation, and now — after a year of widespread use — owners also report greatly reduced heating costs in Winter, and far cooler structures in Summer. The reason lies in the formidable array of insulating materials in Air-cor — most of all, *weather-air in motion.*

Each 2′ x 8′ panel consists of two pieces of Homasote Insulating-Building Board nailed and glued on three 2 x 2 wood members 12″ o.c. A vapor barrier — ¾″ of batt-type insulation — and a ventilated paper are on the lower inside. Each panel has an opening at the end 16″ wide for air to flow through from panel to panel.

Wilson Air-cor's three-way protection against condensation, heat loss, and heat infiltration make it *the* reliable roof decking in any climate. For extreme conditions, forced ventilation may be used.

Complete data on Wilson Air-cor, from insulation factors to application details, are contained in the 68-page Homasote Handbook. On Pages 49-54 you will find results of the University tests of Wilson Air-cor, information about the special ridge panel, and complete specifications. As a finished ceiling, Air-cor offers three different surfaces — Standard Linen, Striated, or Wood-textured. The beveled tongue-and-groove provides a clean-cut V. For added strength, ⅝″ Homasote instead of Standard $^{15}/_{32}$″ is available on the top side, and for fire protection Sote Asbestos Board can be supplied on the bottom. You specify nail holes predrilled for 32″ or for 48″ spans.

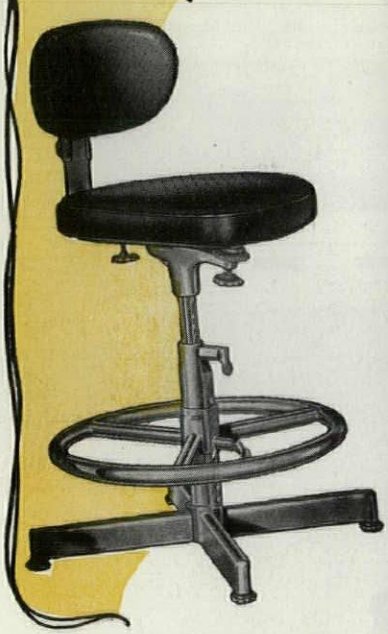
Complete practical detail is typical of each chapter in the Homasote Handbook. Now revised and in its third edition, this building manual should be in the hands of every architect, builder, and dealer. Kindly address your request for the Homasote Handbook — without obligation or cost—to Dept. A-28.



Coming—a new Wilson Air-cor material to reduce air-conditioning costs.

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Pictured, Cramer Hi-Model 4D-22T with forward-tilt seat; others available. All are low-gravity balanced for safe use on casters if desired.

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Please send me complete facts on the Cramer Hi-Model chairs designed for working architects and engineers.

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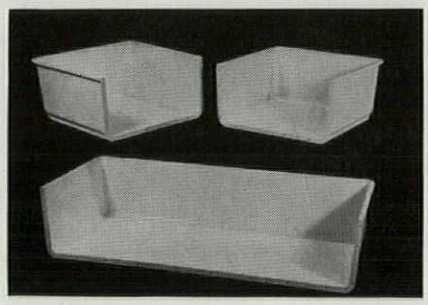
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p/a products

(Continued from page 168)

Travel-Lav: new, packaged toilet and washroom units afford homes convenience of extra bathroom where space will not accommodate conventional fixtures. Designed for rapid assembly, stainless-steel units require only one-third of usual bathroom area. Assembly consisting of fold-away toilet, stationary wash basin, piping connections, and sanitary traps occupies floor area of 8⅝" x 20". Deluxe model offers medicine cabinet, light fixture, and exhaust fan in addition to complete shower, toilet, and lavatory, covering floor area of 31½" x 39". Angelo Colonna, Boudinot and Westmoreland St., Philadelphia 34, Pa.

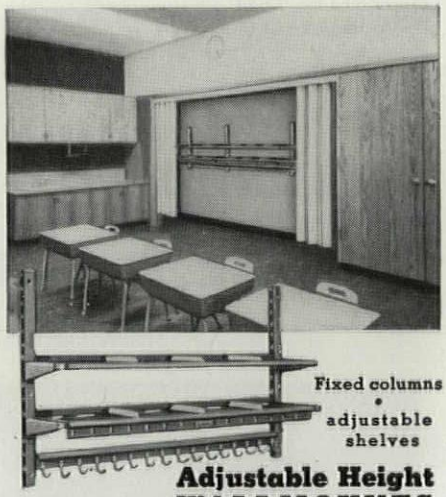


Thermoplastic Drawer: application of thermoplastic design concepts to furniture industry has produced one-piece, custom-molded drawers *(above)* for use in combination with natural wood fronts. New round-cornered drawers without seams or joints are easy to clean and will not warp or dry out under atmospheric changes. Center-guide flange and molded-in top runners allow optimal top or bottom support; integral pastel-colors cannot chip or scratch off. General Electric, Chemical & Metallurgical Div., Pittsfield, Mass.

Hinge Lubricator: new hinge lubricating device will solve perennial problem of annoying door squeaks. Small brass cups with felt insert can be slipped into head of hinge pin; when pin is replaced, installation is complete. Addition of several drops of oil once or twice a year will prevent squeaks and rust; appearance of hinge is not affected. Gordon Associates, Inc., First St., Derby, Conn.

surfacing materials

Contour Inselum Siding: new contour design of aluminum clapboard siding combines neater appearance with practical improvements. Echo chamber created in ordinary hollow aluminum siding is almost eliminated; greater protection against denting is promised as well. Panels are prenotched to speed application; nailing slots concealed in top hem are premarked. To assure proper alignment, 12½ ft panels with 8" weather exposure fit into preformed channels. Available in white, gray, green, yellow, or coral baked-enamel finish. Jones & Brown, Inc., 439 Sixth Ave., Pittsburgh 19, Pa.



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Solve the pupil wraps problem efficiently with Wallmount Coat and Hat Racks. Mount on any available wall space. Hat shelves and hanger bar adjustable on permanently attached columns to height for any age group. Double hat shelves and double row of spaced coat hooks accommodate 6 pupils per running foot. Basic 3' 2" or 4' 2" units interlock to make continuous racks to fit any space or capacity requirements.

OTHER Schooline® UNITS



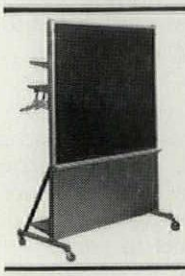
CHALKROBE®

Dual-purpose wardrobe rack. Provides two 4 ft. hat shelves, 4 ft. Hook and Hanger rails for coats adjustable in height to all age groups. 4 ft. overshoe shelf. And, on other side a 50" x 48" chalkboard. Portable or stationary.



CORKROBE®

Identical to Chalkrobe but with pin-up cork board instead of "Chalkboard". These units permit complete flexibility in use of floor space. Can be anchored to floor, or wheeled about on casters. Hold wraps out of the way in orderly and efficient manner.



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With closure panels (as original equipment or add-on units) Chalkrobe and Corkrobe units serve as flexible room dividers, movable walls or screens. Widely used to enclose temporary class rooms, to "build" cloak rooms, meeting rooms, etc.

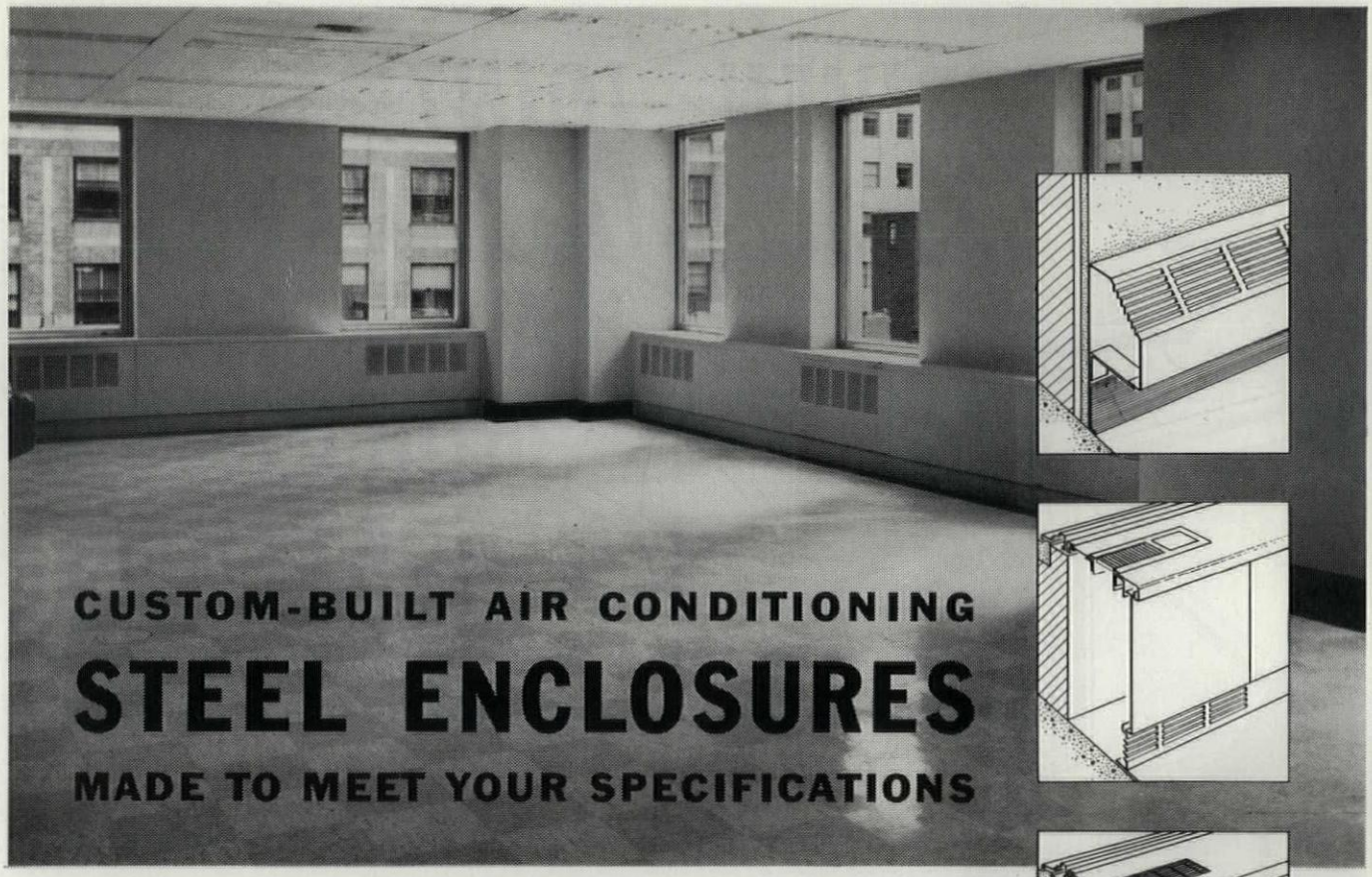


OVERSHOE RACKS

Matching units for Wallmount. Keep overshoes off-the-floor in an orderly manner.

Write for "Schooline" Catalog SL-510

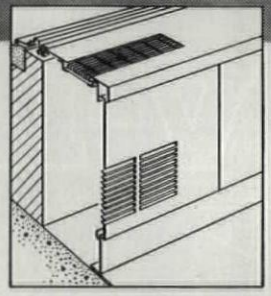
VOGEL-PETERSON CO.
1127 West 37th Street • Chicago 9, Illinois



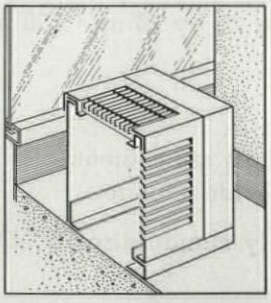
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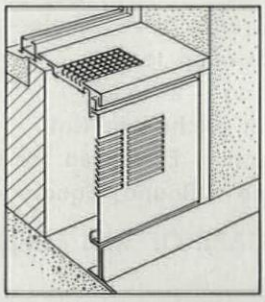
STEEL ENCLOSURES

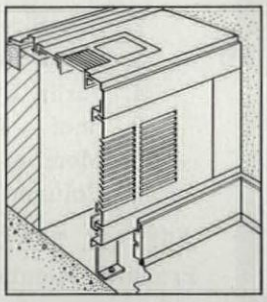
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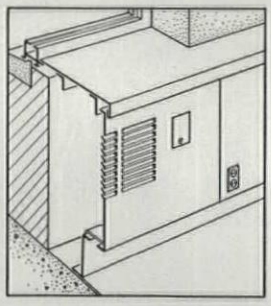


Style, construction and flexibility make *Pomeroy* Enclosures ideally suited to meet your special engineering and design requirements. The new Socony-Mobile Building interior as shown above is a typical example of the many installations of Pomeroy Enclosures going into today's fine structures.









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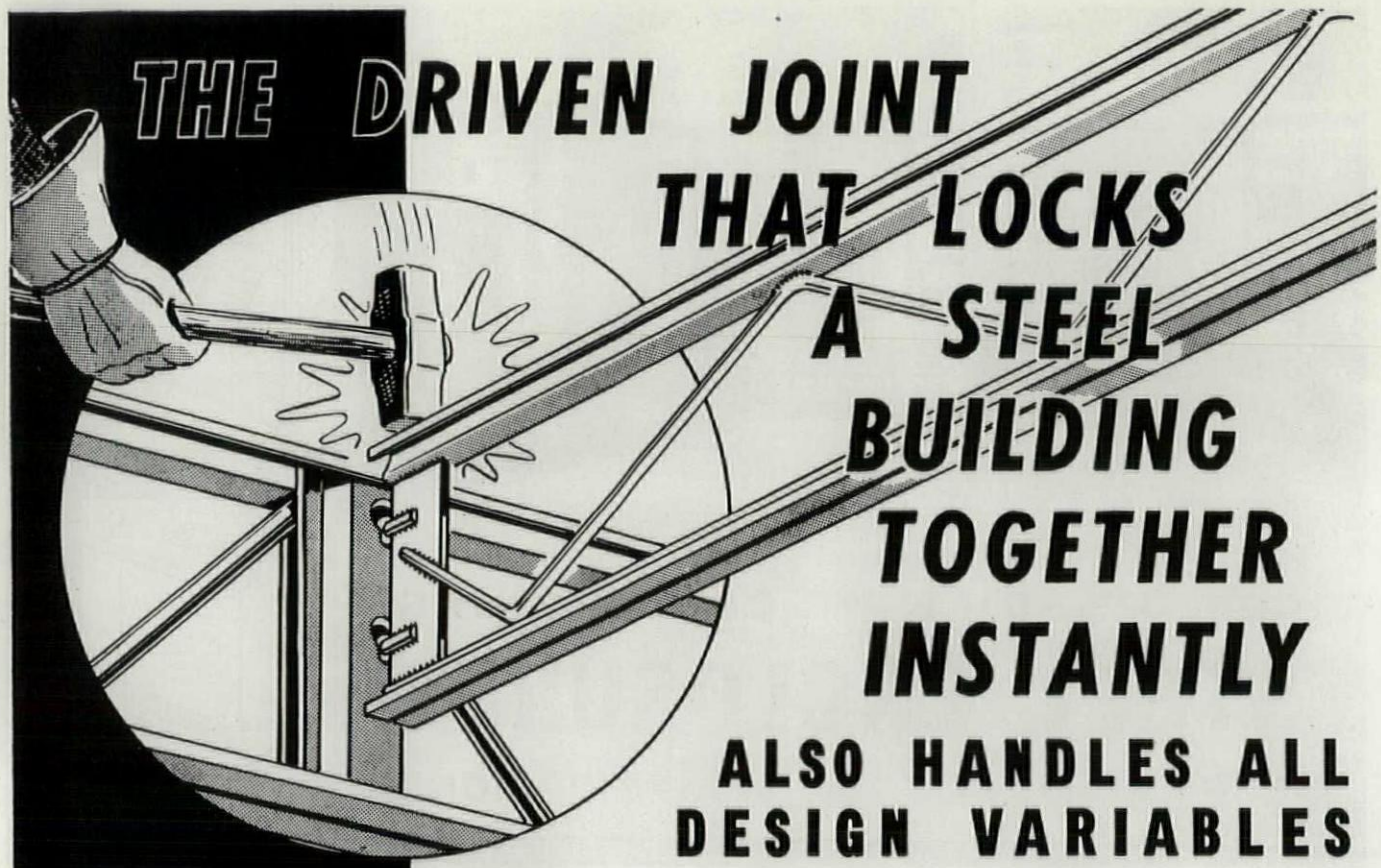
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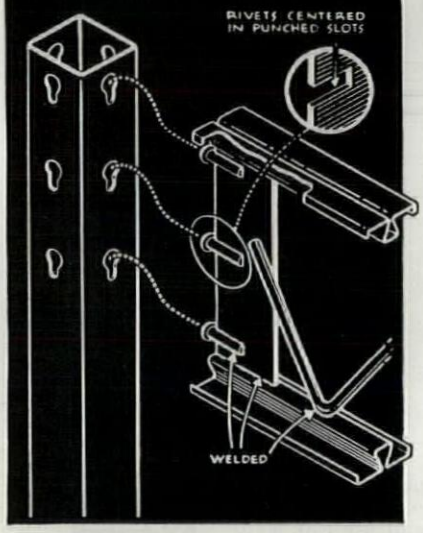
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THESE DESIGN VARIABLES:

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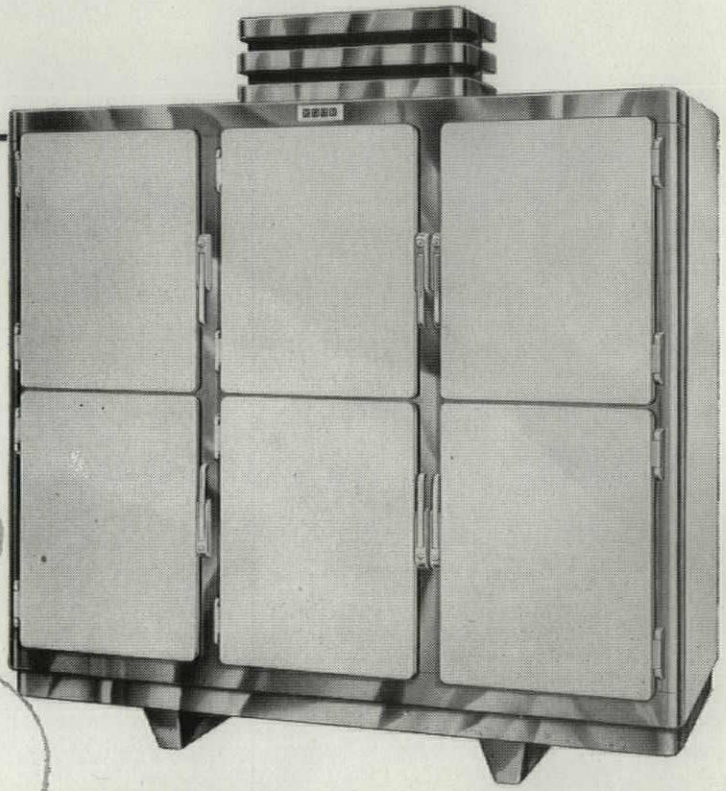
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NEW KOCH Series M

COMPLETE FOOD HANDLING SYSTEMS...



designed for MODERN KITCHEN PRACTICE

PRE-PREPARATION

Ample storage facilities to hold the salads, etc., that can be prepared in slack periods.

CONTAINER CONTINUITY

Complete facilities for the efficient and economical handling of all sizes of pans that are used in preparation and service, thus eliminating costs of transferring foods from one container to another.

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Mobile equipment for the handling—up to, into, and out of the refrigerator—of as many as 100 dishes at a time, thus saving untold steps and promoting economy.

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Easy to use facilities for the pans, trays, cartons, and other containers that are useful in handling portioned items, and thereby actually carrying control right into the refrigerator.

Series M Models are not just refrigerators. They are a system, a modern, progressive method of handling perishable foods . . . a system that fits into and becomes an integral part of the larger, overall system of labor and food management that is the heart of the modern kitchen.

A typical door opening on any Koch Series M model can be instantly equipped to receive, store, and dispense, in an orderly manner, any of the following:

1. 13—18"x26" Trays, or
2. 26—14"x18" Trays, or
3. 20—12"x20"x2" Pans, or
4. 10—12"x20"x4" Pans, or
5. 8—12"x20"x6" Pans, or
6. 48—12"x7"x2" Pans, or
7. 32—12"x10"x2" Pans, or
8. 16—10½"x27"x2" Pans, or
9. 16 Swift portion control cartons, or
10. Any of thousands of combinations

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- in 1, 2, 3, or 4 section widths
- in two depths, 34" or 24"
- in medium or low temperature
- in porcelain or stainless steel
- in front opening or pass through
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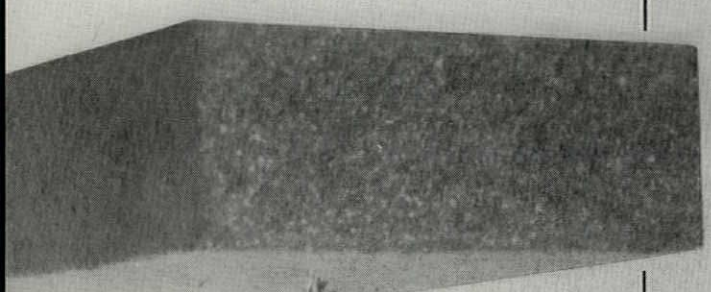
Only **Fesco Roof Deck Insulation Board** rates so high on **every** important count. No other board at any price matches this **balanced combination** of properties. This is because Fesco Board was developed specifically for roof deck insulation. Write for detailed specifications.

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Developers and producers of distinguished, incombustible mineral products including Ebbtone Acoustical Tile, Fesco Insulation Board, Coralux Acoustical Plaster, Coralux Perlite Aggregates, Mica Pellet Vermiculite, High Temperature Insulating Blocks and Insulating Cement.

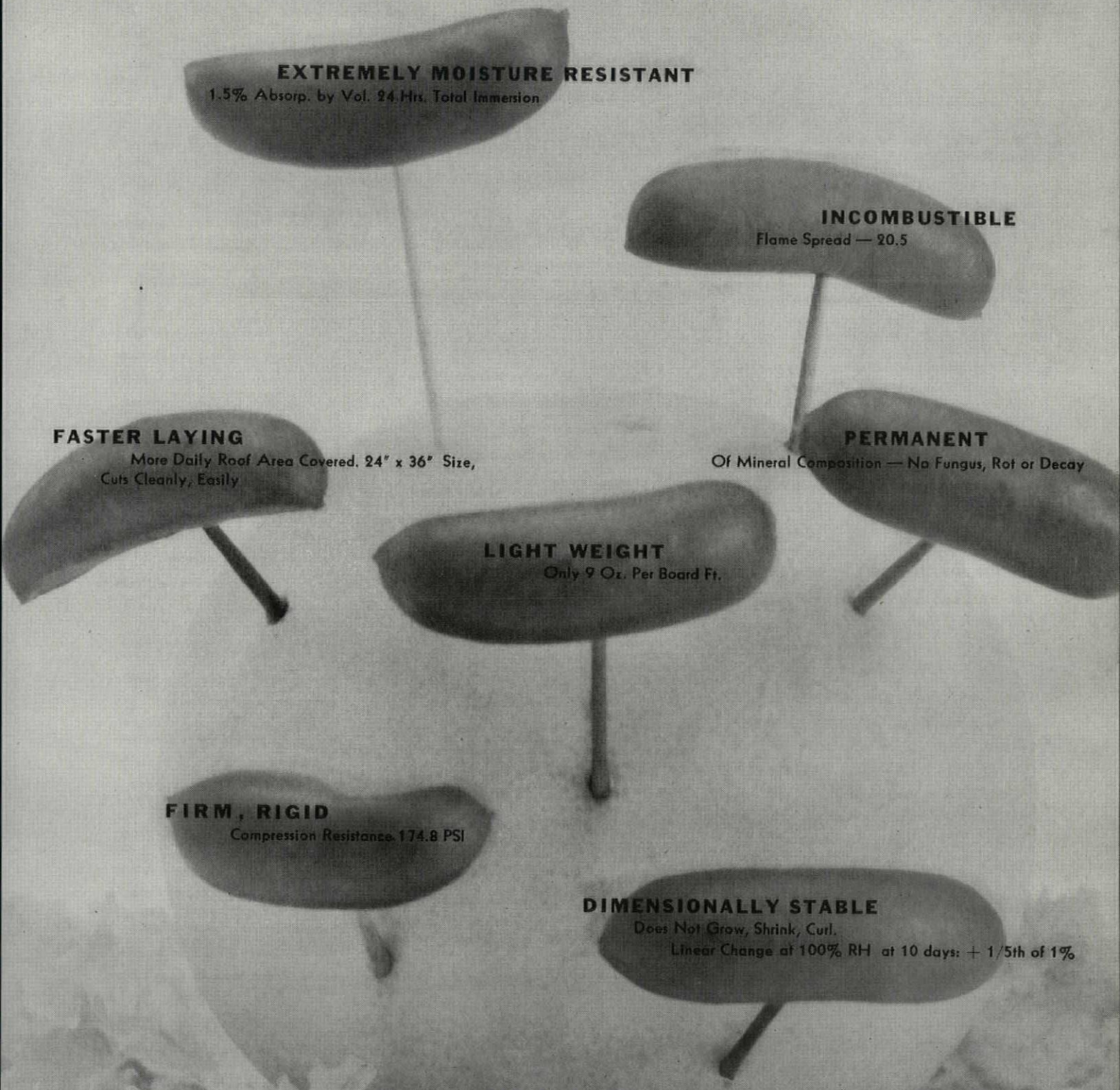




Cellular structure of Fesco blocks out moisture, thermal conductance, creates compressive strength.

The answer to better roof decks is

food for thought:



FESCO BOARD

p/a reviews

books received

The Idea of Louis Sullivan. John Szarkowski. University of Minnesota Press, Minneapolis, Minn., 1956. 161 pp., illus., $10

Le Vie des Monuments Français. Paul Leon. A. & J. Picard et Cie, 82 rue Bonaparte, Paris, France, 1956. 556 pp., illus., 3750 Fr.

Architectural Graphic Standards. 5th Edn. Charles George Ramsey, Harold Reeve Sleeper. John Wiley & Sons, Inc. 440 Fourth Ave., New York, N. Y., 1956. 758 pp., illus., $18.50

ACRL Monograph Number 15. Association of College and Reference Libraries, 50 E. Huron St., Chicago 11, Ill. 168 pp., illus., $3.25 (paperbound)

ASTM Standards on Mineral Aggregates and Concrete. American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa., 1956. 360 pp., illus., $3.75

Lettering For Advertising. Mortimer Leach. Reinhold Publishing Corp., 430 Park Ave., New York, N. Y., 1956. 228 pp., illus., $8.95

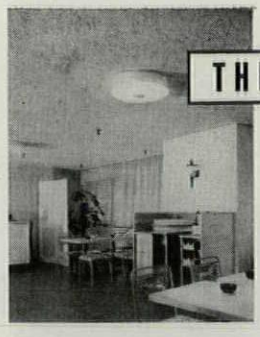
the lost lesson

Art and Industry. *(First American Edition). Herbert Read. Horizon Press Inc., 220 W. 42 St., New York 36, N. Y., 1954. 234 pp., illus., $6*

Herbert Read's *Art and Industry,* recently issued in its first American edition after three printings in England between 1934 and 1953, is considered the standard international textbook on the principles of industrial design. Anyone interested in design quality in the practical arts can now read (or reread) it and weep!

Never has pedagogy come so close to tragedy. Never was a simple little book so sad. Any similarity between the logical and admirable esthetic principles of design, as expounded by Read, and the souped-up visual merchandising of most industrial design, as it is actually practiced today, is largely coincidental. The loss of the lesson is all the more lamentable because, in the quarter century during which the book has served as the primer of the profession, industrial

(Continued on page 182)



THE CEILING: FORESTONE

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New Orleans Room
Seattle, Washington

Acoustical Contractor:
Elliott Bay Lumber Company
Seattle, Washington

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Cramer Acoustics, Fresno and San Francisco
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AC-71-A

THE CEILING: FORESTONE

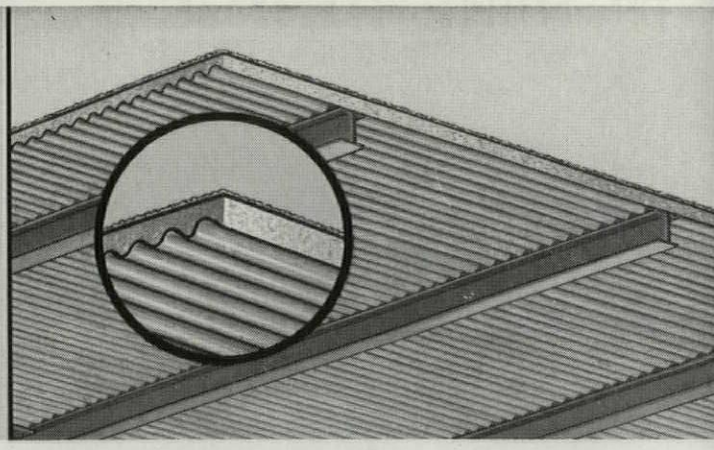


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FISSURED WOODFIBER ACOUSTICAL MATERIAL

Beautiful, yet inexpensive acoustical treatment for restaurants

When you plan a new restaurant . . . or remodel an existing one . . . specify the built-in quiet that can make *any* gourmet happier. Forestone Fissured Woodfiber Acoustical Tile offers you economy and efficiency comparable to that of perforated woodfiber tile plus fissured beauty with warmer texture than even costly mineral tile. Forestone is available in 12″ x 12″ tiles; as ceiling board, sized to fit standard 24″ x 24″ and 24″ x 48″ exposed grid suspension systems; and in 12″ x 23¾″ tiles designed for exposed Z and T suspension systems. And *now,* Forestone is available in 12″ x 24″ center-scored tiles with tongue-and-groove edges, flanged for nailing or stapling. When you specify Forestone in your next restaurant job, call your nearest Simpson Certified Acoustical Contractor (see list on opposite page) to assist you. He'll be glad to help in any way he can.

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1. EXPOSED CEILINGS

In warehouses and factories, high-tensile Tufcor® galvanized steel deck provides a strong, permanent base for insulating concrete, makes possible a lightweight, economical roof system with positive vapor barrier and maximum fire safety. Tufcor weighs up to 6 lbs. per square foot *less* than other decking, is easy to handle and place. Sheets span up to 7′, are easily plug-welded to beams. Tufcor provides a safe working platform for trades, saves on the high cost of structural framing and fill. Granco Steel Roof Deck may also be used with exposed ceilings.

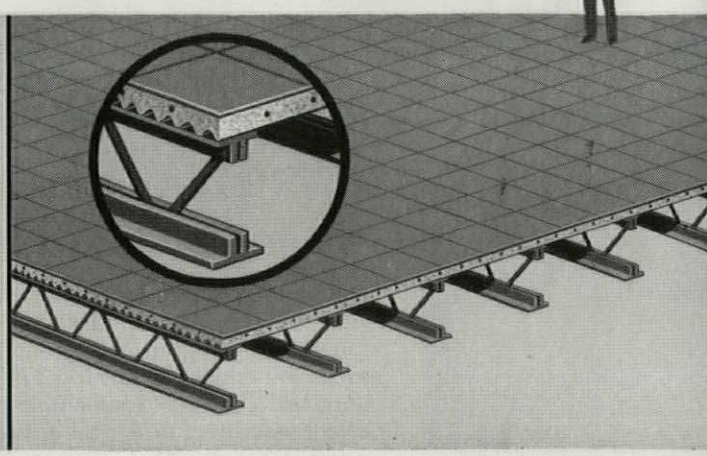
CHOOSE THE PRODUCT DESIGNED TO

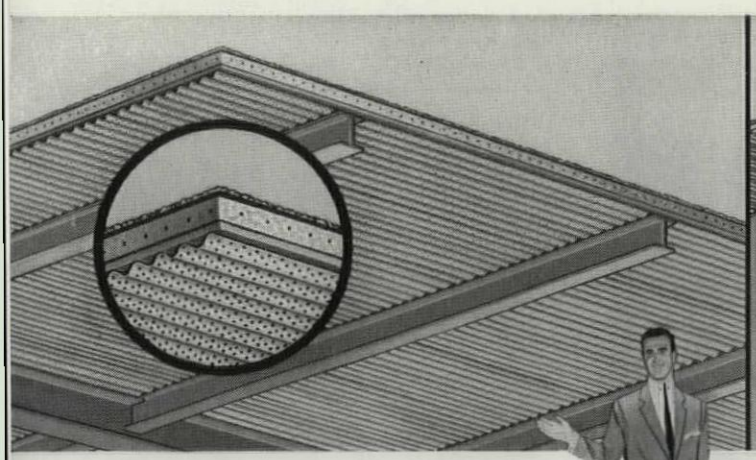
4. UP TO 30″ SPANS OVER STEEL JOISTS

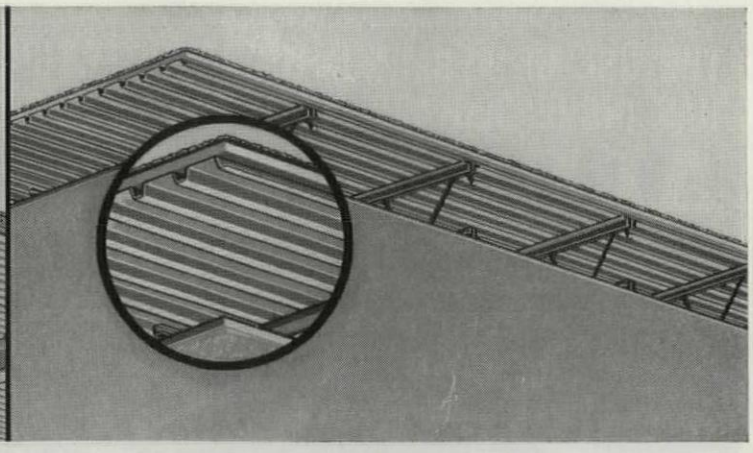
Granco Corruform® (100,000 psi and stronger) is a simple, economical means of forming concrete floor slabs over open web steel joists. Corruform retains the cement paste, speeds finishing, combines placing and finishing of concrete in *one* operation, offers rigidity that assures true and level finish. High-strength sheet won't sag, saves up to 20% on concrete with no sacrifice in slab design. Corruform is easy to handle and place, easy to clip or weld to supports, withstands denting, gives added stiffening to joists or beams.



FLOORS







2. ACOUSTICAL CEILINGS

New idea for schools, offices, plants: Granco's Structur-Acoustic makes possible a *5-inch* roof system that combines structural deck, lightweight insulation and acoustic ceiling. Galvanized corrugated steel sheet with acoustic underside, Structur-Acoustic is strong, economical, attractive, won't rip or dent... provides a firesafe base for acoustic board, concrete slab and built-up roof . . . saves 11″ to 15″ in wall height... offers one-third more roof for your dollar! All materials assembled at job site by local labor.

3. SUSPENDED CEILINGS

Strong Granco Roof Deck (or Tufcor) with suspended ceiling makes possible low-cost roof system, permits easy installation of air-conditioning ducts, electrical conduits, recessed lighting. Granco Steel Roof Deck covers up to 35 sq. ft. per sheet, provides a smooth, flat base for insulation and built-up roof. Low dead weight (10-12 psf) saves up to 10¢ a sq. ft. over heavier types of roof deck! Deep, open rib design offers maximum strength, permits fast plug welding from above. Granco Roof Deck is rotary press formed for uniformity—no sheet "crawl"!

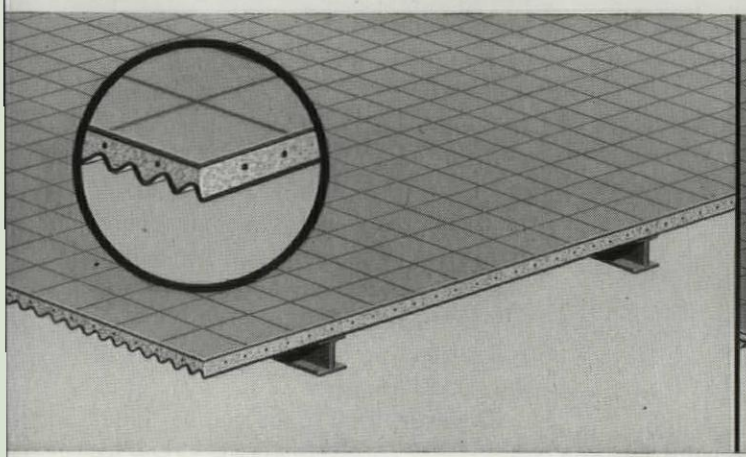
SAVE YOU TIME, WORK AND MONEY ON SCHOOLS, STORES, PLANTS, ETC.

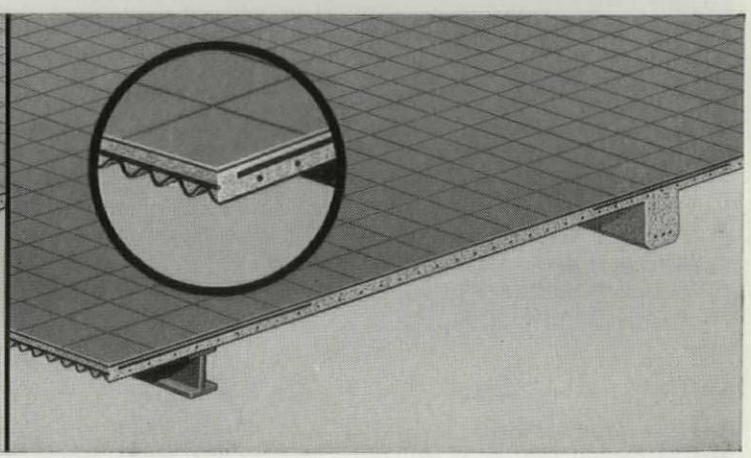
5. 30″–8′ SPANS OVER BEAMS

Tufcor is tough-temper, high-strength steel designed to fit wider spacing and accommodate heavier loads in flat slab construction where conventional forming costs are high. In floors, Tufcor serves as a permanent stay-in-place form for structural-grade concrete, provides a good platform for workers. Tufcor arrives pre-cut to fit framing members, speeds concrete placement by eliminating form stripping, provides a tight, solid base for concrete. Permanent slab form construction is incombustible, eliminates fire hazard during the construction period.

6. 8′–14′ SPANS OVER BEAMS

High-strength, deep-corrugated Cofar® steel units —with transverse wires welded across corrugations —combine form and reinforcement in *one* operation! Cofar offers in one product all the positive and temperature steel needed in the reinforced concrete slab . . . eliminates cutting, fitting, removal, repair and storing of wood forms. Cofar construction is equally suited to steel or concrete frame. After concrete slab is placed, a fire-resistant, high-strength reinforced concrete floor results. Attractive Cofar underside may be painted for a finished ceiling.





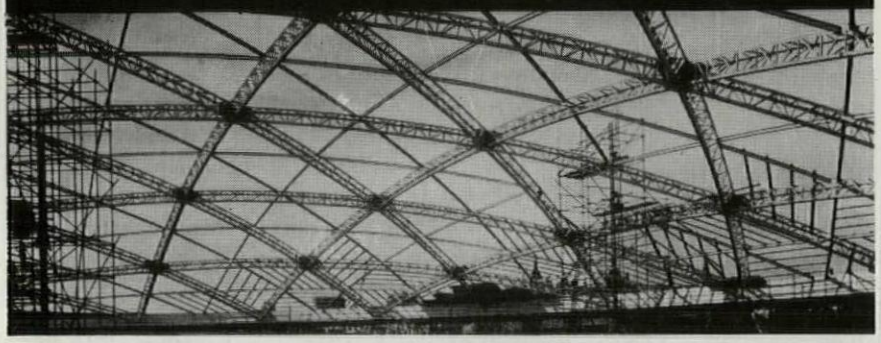
THE USE OF ALUMINUM IN ARCHITECTURE
HAS INCREASED 45% IN THE LAST FIVE YEARS

ALUMINUM IN MODERN ARCHITECTURE

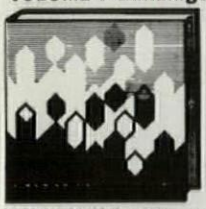
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reviews

(Continued from page 178)

design has come of age. It is Big Business, firmly entrenched in the economy of the country. Although practiced by architects abroad, in America it is already the undisputed province of specialists. Almost any product that reaches the consumer has gone through the hands of the industrial designer, who has "human-engineered" and "color-engineered" it, decided on its "impact appeal," "eye appeal," "appetite appeal," and "selection potential," through market research and the buyer's "motivation factors." He has streamlined it, tapered it, textured it, tinted it, and made it glitter and gleam. With all of this, it is seldom an object of pleasing appearance. The incontrovertible fact remains that there is very little resemblance between art and design, living or dead; and that art and industry, in the heyday of the profession and the 22nd year of Read's book, have never been farther apart.

For the truth is that industrial design relies not on art, but on style, slogans, and statistics. The basic requirements for any work of art, whether "fine" or "functional"—precision, clarity, refinement of form and line, sensuous appeal—are considerations that have been bypassed and rationalized by the average industrial designer. Those who give these factors their full due in the process of product development, seldom mention them by their right names: "art" and "esthetics" are the unprintable words of the design profession. The word "design" has been used to cover the word "art" much as the Victorians employed the euphemism "limbs" for "legs." "Design," in turn, is carefully buried under facts, figures, and psychological data. It's there, no matter what you call it, and no product can be shaped without conscious or unconscious consideration (more often, violation) of its principles.

However, the industrial designer

(Continued on page 186)



If you've been looking for a low cost, non-bearing steel stud that's *nailable* — stop! You can find it in Penmetal's new *Permalok* stud system.

Consisting of *nailable* steel studs, track and bridging and the necessary washers, this system offers many advantages in the erection of non-bearing partitions. Collateral materials like metal lath, gypsum lath or virtually any type of panel can be secured to Permalok studs — as simply as to wooden ones. An ingenious nailing device bites the nail or screw with a never-loosening grip. What's more the face of the stud is wide enough to permit the butting of collateral material.

Components of the *Permalok* system are inexpensive per foot of partition. Because they are light in weight and fit together readily, they are *fast, easy* and *economical* to erect. Other benefits: *Fire—safety, permanence, strength, rigidity* and *simple disassembly.*

Write for new folder which describes Penmetal's adaptable, economical Permalok system in detail.

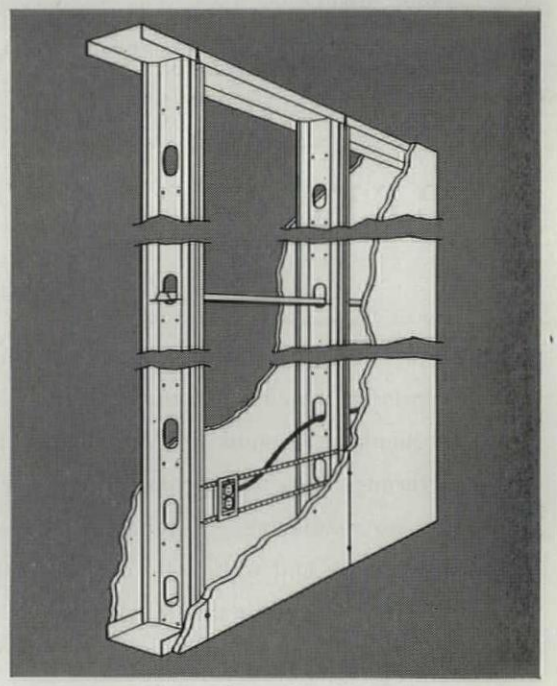
PENN METAL COMPANY, INC.

General Sales Office: 40 Central Street, Boston 9, Mass.

Plant: Parkersburg, W. Va.

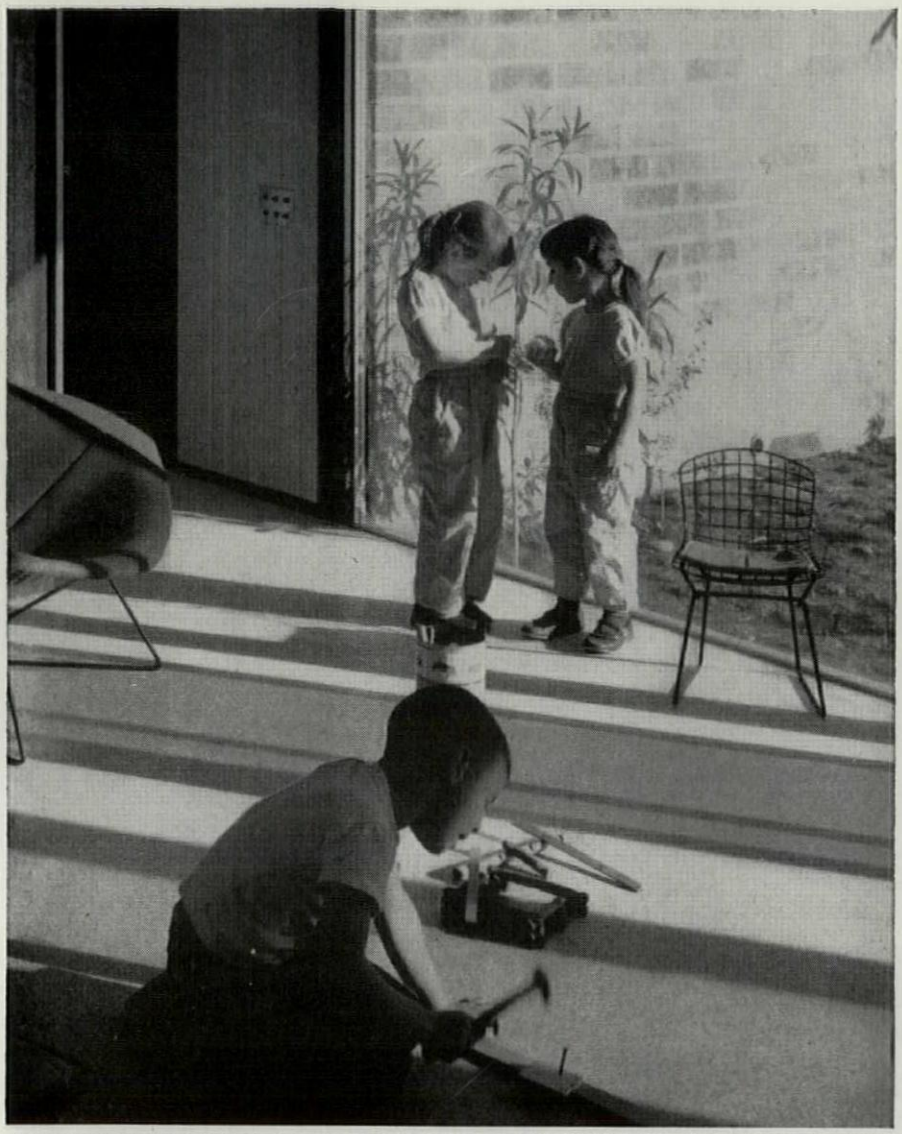
District Sales Offices: Boston, New York, Philadelphia, Pittsburgh, Chicago, Detroit, St. Louis, Dallas, Little Rock, Seattle, San Francisco, Los Angeles, Parkersburg

METAL MARK Penmetal 1869 OF QUALITY



Typical panel assembly.

PM-112



CASE STUDY HOUSE NO. 17, DESIGNED BY CRAIG ELLWOOD FOR THE MAGAZINE, ARTS & ARCHITECTURE. PHOTO BY JASON HAILEY, 506 S. SAN VICENTE, LOS ANGELES.

Terrazzo:

The one to grow on

Young *homo sapiens*, nature's most charming and destructive invention, meets his match in Terrazzo, the floor of ageless vitality. Capable of withstanding the most fiendish attacks known to children, Terrazzo comes through with flying colors. It is easy to clean, hard to stain. It requires no refinishing, no painting, no costly repairs. Available also for walls, stairs and wainscots, Terrazzo offers infinite possibilities of design and color combinations. Specify Terrazzo and give your imagination free rein. For detailed information, write the Association in Washington, D. C. AIA Kit sent upon request. Catalogued in Sweet's.

THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION

Sheraton Building, 711 14th St., N.W. Washington 5, D.C.

reviews

(Continued from page 182)

has successfully convinced the manufacturer, and himself, that he is *not an artist*. He is a businessman, an engineer, a statistician, an opinion poller, a marketing expert—anything readily comprehensible and saleable to the commercial mind. He has not only put on a false face, but invented some impressive doubletalk to go with it.

Neither the manufacturer, the buyer, the public, nor the designer is to blame. The fault lies deeper, in the nature of our civilization. The philosophy and education of this century have placed complete emphasis on the "rational" and the "real." We respect only the incontrovertible fact, the practical conclusion reached by concrete data. "America has been oversold on science," says Abraham Flexner in his book, *Funds and Foundations*, explaining the lack of projects sponsored in the arts. The intangible, the unprovable, all of those vast areas that include so many of the emotional and spiritual necessities of life, still defy scientific law and analysis. Such things are suspect in our culture! How can art and esthetics survive in an atmosphere of this sort? How can they ever be understood in their proper and necessary relationship to industry? How can the designer sell fitness and beauty, pleasure to the eye and hand, in terms of proper function and construction, even if the public would buy it? Is the manufacturer to be blamed if he wants his product designed according to some pseudo-scientific method, based on the gimmicks and gobbledygook developed by that powerful arbiter of American taste—the advertising manipulator—even if this is the proven road to tasteless mediocrity? Is the designer to be blamed for resorting to statististyling?

The answer is that the blame still lies squarely where Herbert Read put it when he first wrote his treatise in 1934: in existing attitudes toward

(Continued on page 188)



Porcelain enamel fired on steel at 1550°

Weis *Vitre-Steel* compartments are porcelain enameled inside and out for a lifetime of beauty and utility. Exposed surfaces are then refired in your choice of Weis *Vitre-Steel* colors. Glass hard, AA Grade, acid-resisting *Vitre-Steel* withstands not only normal everyday usage, but is highly resistant to acids, cleaning compounds and even defacement. Perfect for hospitals, schools, offices, factories . . . wherever you install them. Available in ceiling-hung type as shown, or floor-braced styles.

SPECIFICATIONS: Panels, stiles and doors shall be flush construction, and shall be made of two face plates of not less than 18-gauge enameling iron with formed edges, cemented under pressure to fiberboard core and joined by welding abutting edges at suitable intervals. Edges shall be bound with die-drawn stainless steel moldings interlocked under tension onto formed edges, mitered and welded at corners and welds ground smooth. Partitions and doors shall finish 1″ thick; stiles shall finish 1¼″ thick.

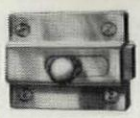
All surfaces, concealed and exposed, shall receive a vitreous porcelain enamel ground coat. All exposed surfaces shall then be given a cover coat, in a color selected from the Weis color chart of decorator colors.

Doors shall be hung on WEIS gravity hinges with upper hinge mounted in recess in edge of door. Doors shall be fitted with slide bar latch, combination keeper and bumper and coat hook with rubber-tipped bumper, all to be brass, chromium plated. Latches and coat hooks shall be attached with theft-resistant screws.

WEIS

WRITE FOR NEW COMPLETE CATALOG

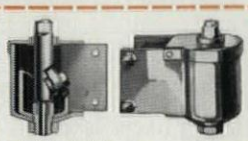
HENRY WEIS MANUFACTURING COMPANY, INC.
167 Weisteel Building, Elkhart, Indiana


SLIDE BAR LATCH


COMBINATION KEEPER AND BUMPER

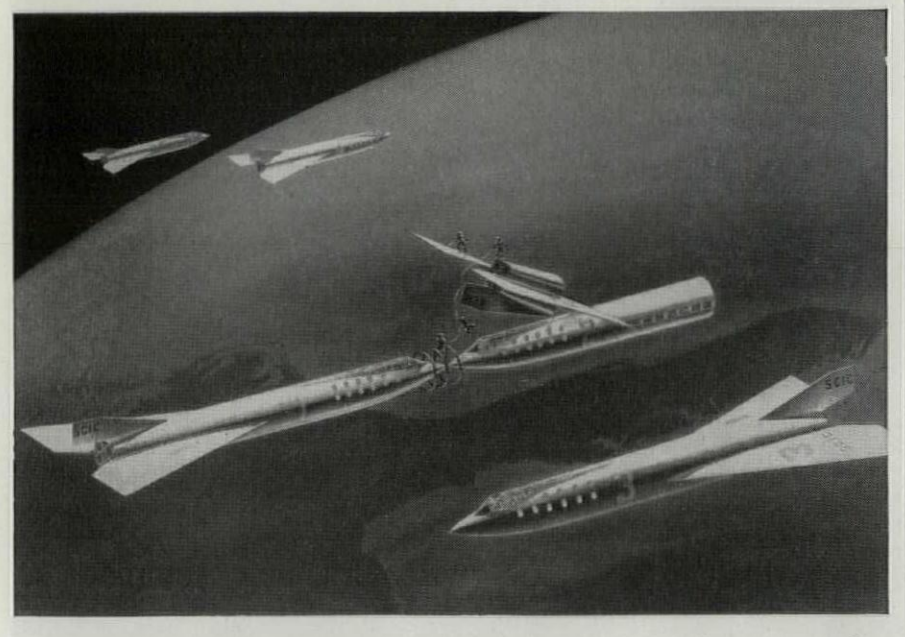

COMBINATION COAT HOOK AND BUMPER


CUTOUT TYPE TOP DOOR HINGE


CUTAWAY

UNIVERSAL BALL BEARING GRAVITY TYPE BOTTOM DOOR HINGE

MARS outstanding design **SERIES**



birth of a satellite

Most new ideas, like this inhabited satellite, start out as drawings on a sheet of paper. Here artist Russell Lehmann shows the first step in building the space station proposed by Darrell C. Romick, aerophysics engineer at Goodyear Aircraft.

Two ferry ships, one stripped of rocket units, are joined end to end. As others are added, this long tube forms temporary living quarters for crews. Eventually, outer shell will be built around core, making completed station 3,000 feet long, 1,500 feet in diameter.

No one can be sure which of today's bright ideas will become reality tomorrow. But it is certain that in the future, as today, it will be important to use the best of tools when pencil and paper translate a dream into a project. And then, as now, there will be no finer tool than Mars — from sketch to working drawing.

Mars has long been the standard of professionals. To the famous line of Mars-Technico push-button holders and leads, Mars-Lumograph pencils, and Tradition-Aquarell painting pencils, have recently been added these new products: the Mars Pocket-Technico for field use; the efficient Mars lead sharpener and "Draftsman's" Pencil Sharpener with the adjustable point-length feature; and — last but not least — the Mars-Lumochrom, the new colored *drafting* pencil which offers revolutionary drafting advantages. The fact that it blueprints perfectly is just one of its many important features.



The 2886 Mars-Lumograph drawing pencil, 19 degrees, EXEXB to 9H. The 1001 Mars-Technico push-button lead holder. 1904 Mars-Lumograph imported leads, 18 degrees, EXB to 9H. Mars-Lumochrom colored *drafting* pencil, 24 colors.



J.S. STAEDTLER, INC.
HACKENSACK, NEW JERSEY

at all good engineering and drawing material suppliers

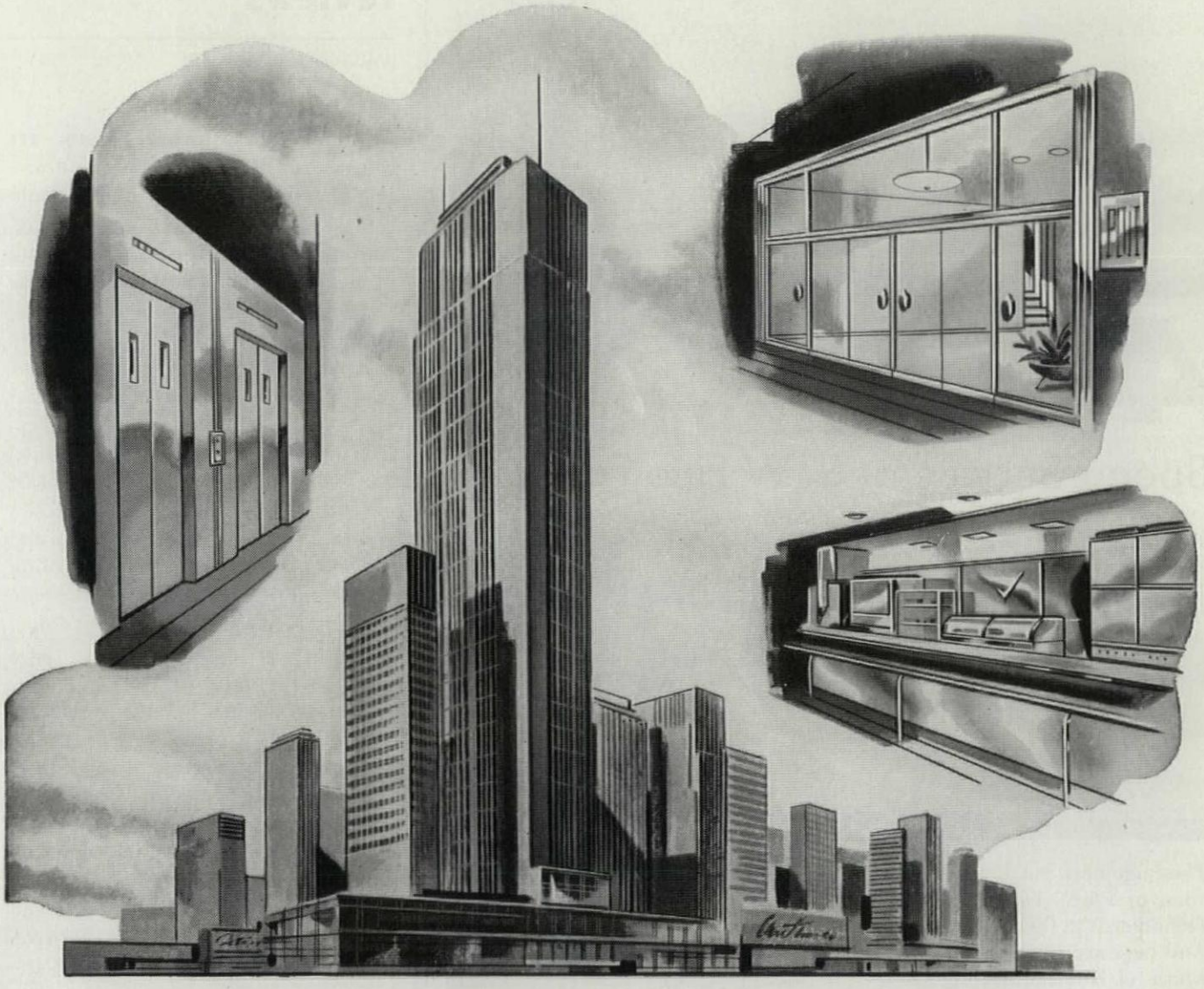
reviews

(Continued from page 186)

art and education. Equally important, although not emphasized in the book, is the economic necessity of artificial obsolescence, which has been responsible for the most noteworthy design obscenities of our age. The economic and cultural climate of our civilization is the source of a great deal of the overwhelming ugliness in our lives: our chaotic cities, our discordant homes, our jazzed-up products. The prevalent decline and disfavor of esthetics and ignorance of the proper application of esthetic principles to the visual problems of industrial production—even among many designers—accounts for much of the meaningless vulgarity that surrounds us. As Read points out so well, the trouble goes back to certain basic intellectual attitudes that can easily be traced. They stem originally from the artificial separation of "fine" and "applied" arts, a fallacy well established before the Industrial Revolution. Machine production only made the problem more acute, as industry "applied" mechanical imitations of the hand decoration of the humanist tradition to mass-produced articles. All art was considered embellishment, whether it was the embellishment of the salon by painting and sculpture, the embellishment of the useful object by added decoration, or the architect's contribution to the building.

There was little understanding of the important esthetic qualities inevitably possessed by the object itself. Beauty of bone structure was never admired by the Victorians; only the round, rosy flesh that covered it. This schism between art and life, this confusion between fundamentals and their enrichment, deprived art education of any real value—a situation that still persists today. Because our present system considers the pursuit of science more valid than the education of the senses and of the whole man, the arts have lost their academic standing. Practice is as

(Continued on page 190)



in buildings...
everybody benefits from stainless steel

the architect specifies long-lasting Stainless Steel for its strength, its beauty and its economy of maintenance. In heavy use areas and for weather-exposed panels and trim, nothing stands up or keeps its smooth finish like Stainless Steel.

the builder likes working with Stainless Steel. It is easy to install, does not dent, peel or discolor and presents no problem on matching or replacement.

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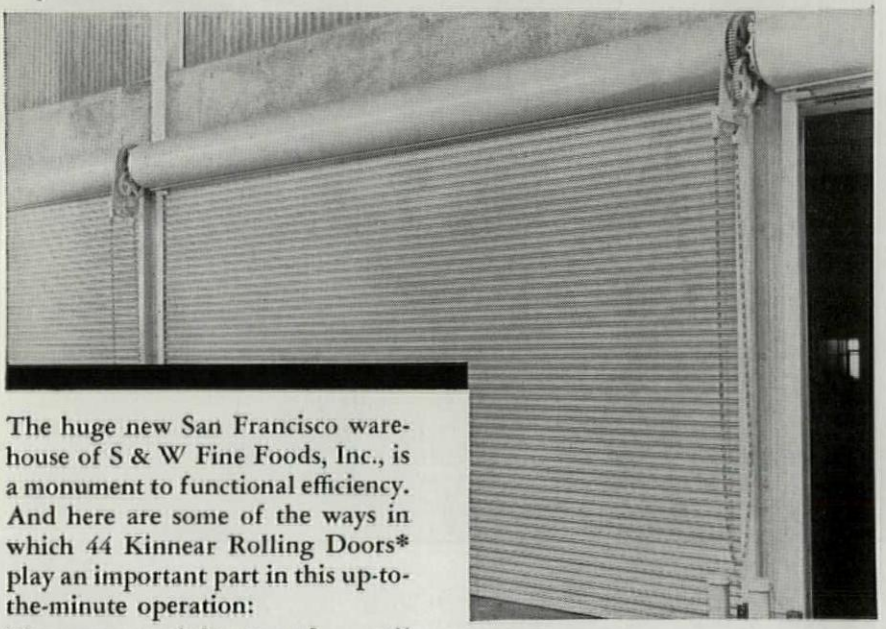
For the product you make today and the product you plan for tomorrow specify McLouth high quality sheet and strip Stainless Steel

McLouth Steel Corporation DETROIT, MICHIGAN • MANUFACTURERS OF STAINLESS AND CARBON STEELS



44 Kinnear Steel Rolling Doors

Speed Service at S&W Fine Foods —



The huge new San Francisco warehouse of S & W Fine Foods, Inc., is a monument to functional efficiency. And here are some of the ways in which 44 Kinnear Rolling Doors* play an important part in this up-to-the-minute operation:

They open *straight upward* . . . coil smoothly out of the way *above the opening* . . . clear the *entire* doorway quickly — from jamb to jamb and from floor to lintel.

They stay *out of reach* of damage by wind or vehicles.

All floor and wall areas around the doorway are *always* fully usable.

Ceiling space around openings remains clear at *all times*. There's never any interference with cranes, hoists, conveyors, lighting, or other overhead equipment. Goods can be stacked "clear to the rafters" inside or outside the opening.

The tough, flexible, all-steel curtain of interlocking slats assures *long* service, *low* maintenance costs, and *extra* protection against fire, wind, intrusion, and vandalism.

Heavy galvanizing—1.25 ounces of pure zinc per square foot of metal (ASTM Standards) — gives added resistance to weather, wear, and corrosion.

Kinnear Rolling Doors are built any size, for old or new buildings, with motor or manual control. Write for information, or for recommendations on your door needs.

*33 Kinnear Steel Rolling Doors 18'9" wide by 10' high, ten doors 10' wide and 10' high, and one door 6' wide by 7' high.

KINNEAR ROLLING DOORS — Saving Ways in Doorways

The KINNEAR Mfg. Co.

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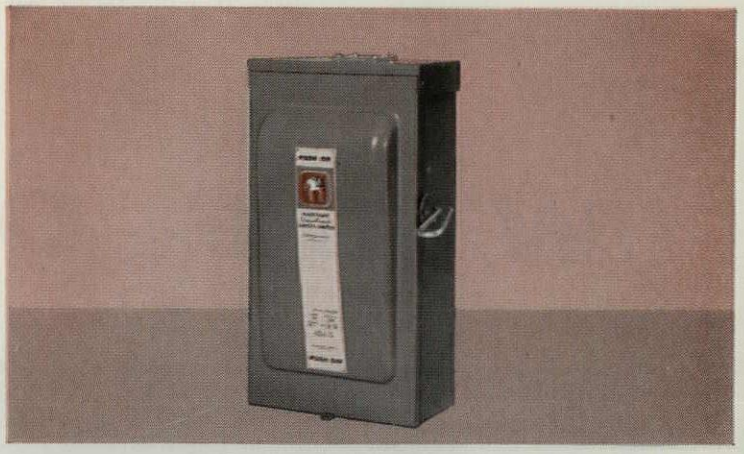
(Continued from page 188)

reactionary as theory. Many art courses consist of exercises in drawing and painting when they should consist of exercises in seeing. Through this tradition and this kind of teaching, most people have come to believe that art is something dead, static, separate from life. Certainly the businessman wants no part of this kind of art in the commercial field—and certainly he is justified. Nor can the situation change until our schools begin to teach, as basic education, that the source of all art is the living world, that the formal elements of art exist in everything visible and tangible, and that these elements are present in every object and every vista that presents itself to us in our daily lives.

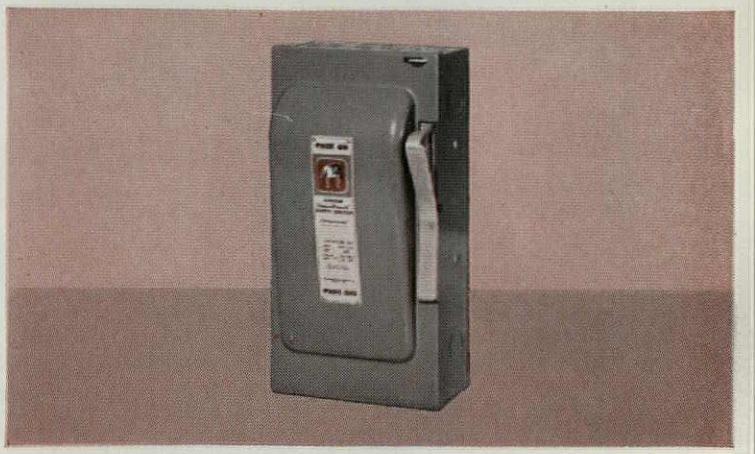
Herbert Read attempts to clarify this unsolved problem through a systematic intellectual analysis of the formal elements of design and their application to industrial processes. He begins with history and valuable definition: the development of the fallacious concept of fine and applied art, the difference between humanistic and abstract art, the nature of form in art, the function of decoration, the esthetic problem of standardized production. Then, in detail, he discusses form, color, and ornament, dwelling on a didactic organization of such things as "ornament — structural — fortuitous and factitious"; "ornament — applied — geometric, stylized, organic or naturalistic"; "form—rational or intuitional." If this excellent analysis occasionally seems overly pedantic, it in no way lessens the delight to the reader of such lively and valid observations as, "I feel that a really civilized person would as soon tattoo his body as cover the form of a good work of art with meaningless ornament. The only real justification for ornament is that it should in some way emphasize form. . . . Legitimate ornament I conceive as something like mascara and lipstick—something

(Continued on page 194)





Raintight Clampmatic Vacu-Break—a fusible or nonfusible switch completely weather-proof. Ratings from 30 to 200 amps.



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Three exclusive *safety firsts* are the mark of *all* BullDog switches. They assure top efficiency and performance . . . bring *extra* protection and longer life.

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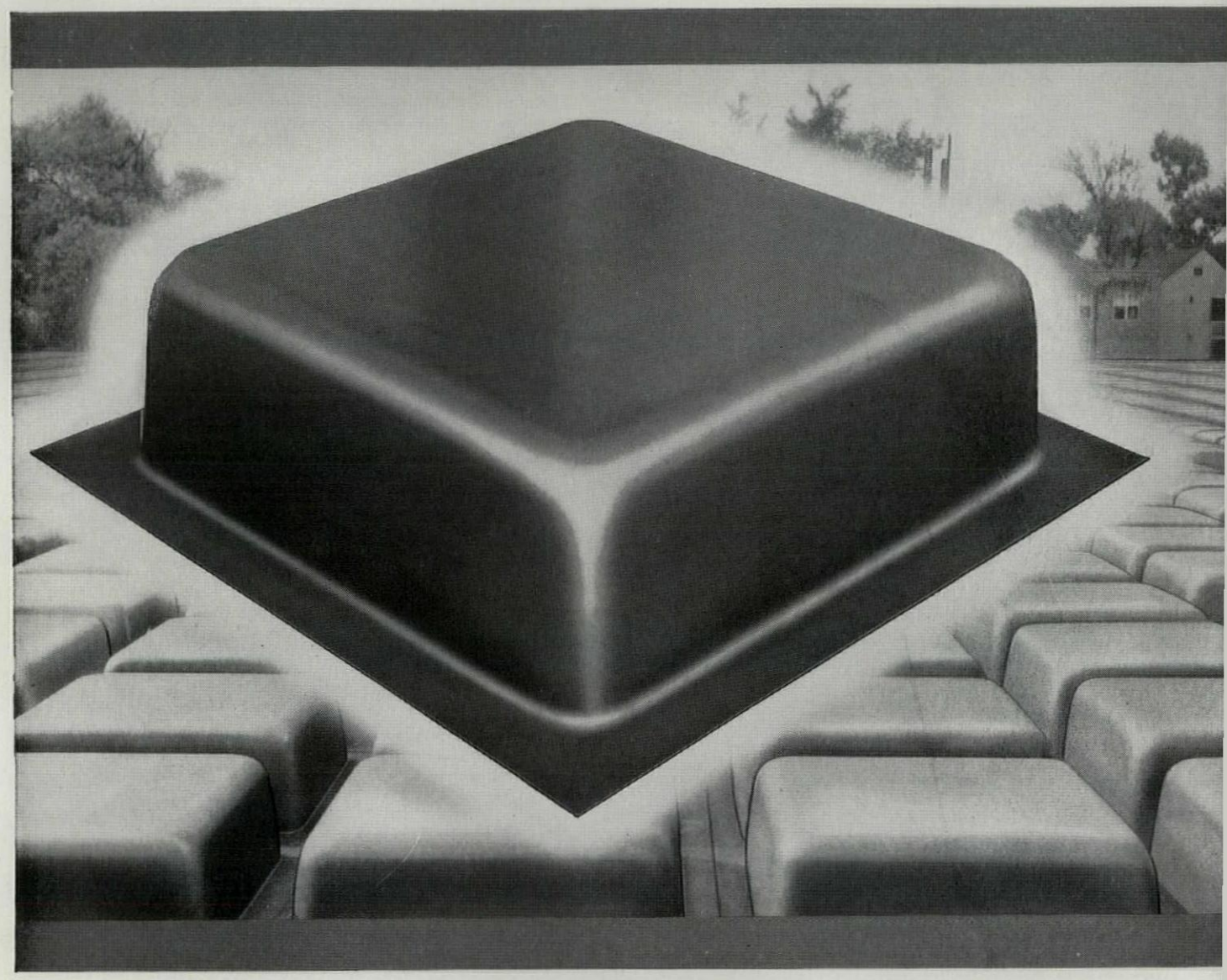
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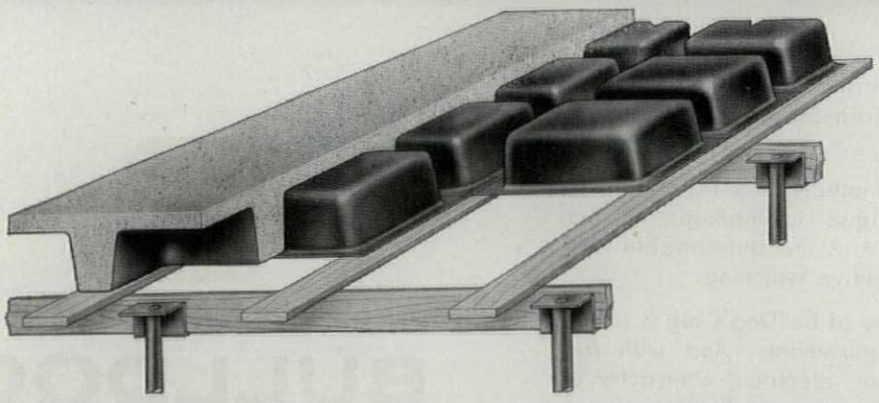
IF IT'S NEW... IF IT'S DIFFERENT... IF IT'S BETTER... IT'S

BULLDOG

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WIDE OPEN *SPACES...*





Showing how Steeldomes are used in forming waffle-type (two-way) concrete joist construction. Steeldomes are rigid, deep-drawn, one-piece units. Flanges forming standard-width joist soffits are an integral part of the Steeldomes. When erected Steeldomes are butted at all soffit joints, and eliminate the common defects of forms which must be lapped. Wide column spacings for open floor areas are easily achieved, because of (a) the basic economy of two-way construction, and (b) the saving of dead-load through use of a joist framing system. Story heights are decreased by the elimination of deep beams. Standard Steeldomes have a void of 30" x 30" and an overall plan size of 36" x 36" including flanges. Standard depths are 8", 10", 12", and 14".

WITH ECONOMY...FOR TODAY'S CONSTRUCTION



...ALL MADE POSSIBLE WITH THE NEW CECO-MEYER ONE-PIECE STEELDOME METHOD OF FORMING WAFFLE-TYPE CONCRETE JOIST FLOOR SYSTEMS

Maximum use of floor space is a must in today's functional buildings. And the most practical way to design wide open floor areas . . . with no projecting beams . . . is by using waffle-type concrete joist construction formed with Ceco-Meyer one-piece Steeldomes. The new Ceco method is the most economical way of forming waffle-type concrete joist construction. In most cases you save up to 30% in materials . . . up to 40% in floor weight compared with the use of flat plate. Besides saving money, labor and materials, Ceco Steeldomes form smooth concrete surfaces for exposed ceilings of high quality finish—pleasing waffle-pattern design at no extra cost. R/C duct underfloor electrification may be readily installed—and pipes, ducts and other mechanical equipment can be located without interference of projecting beams. In planning your next building project, call in your Ceco product specialists.

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Offices, warehouses and fabricating plants in principal cities
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IN CONSTRUCTION PRODUCTS CECO ENGINEERING MAKES THE BIG DIFFERENCE

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"CREATIVE ENGINEERING" BY CECO—with a variety of building methods and products to meet any design problem. See CECO in the early planning stage for Steel or Concrete Joist Floor Systems—the most economical underfloor electrification—the widest line of Steel and Aluminum Windows and Curtainwalls. All will help you achieve individuality in building design. And at CECO construction materials and services can fit the tightest budget.

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the only non-laminated structural plastic sheet with natural embedments of leaves, ferns, butterflies, fabrics. Send for exciting 36-page book of designs and samples.

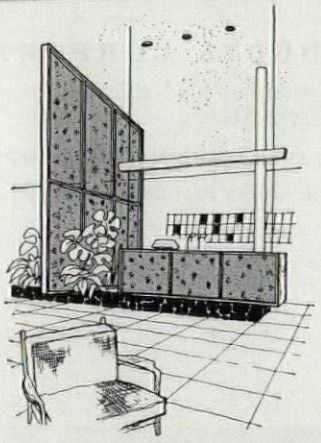


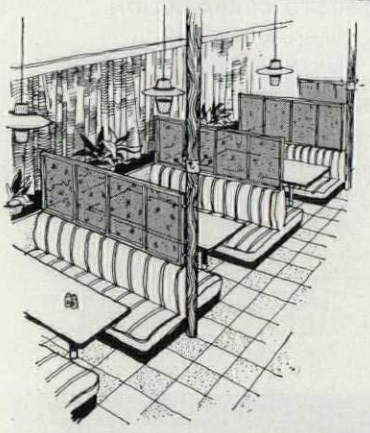


Try beautiful **ACRYLITE** for shoji walls, sliding doors, screens.



Try shatter-resistant **ACRYLITE** for spectacular large scale room dividers.







Try translucent **ACRYLITE** for partitions that provide privacy and transmit light.

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reviews

(Continued from page 190)

applied with discretion to make more precise the outlines of an already existing beauty."

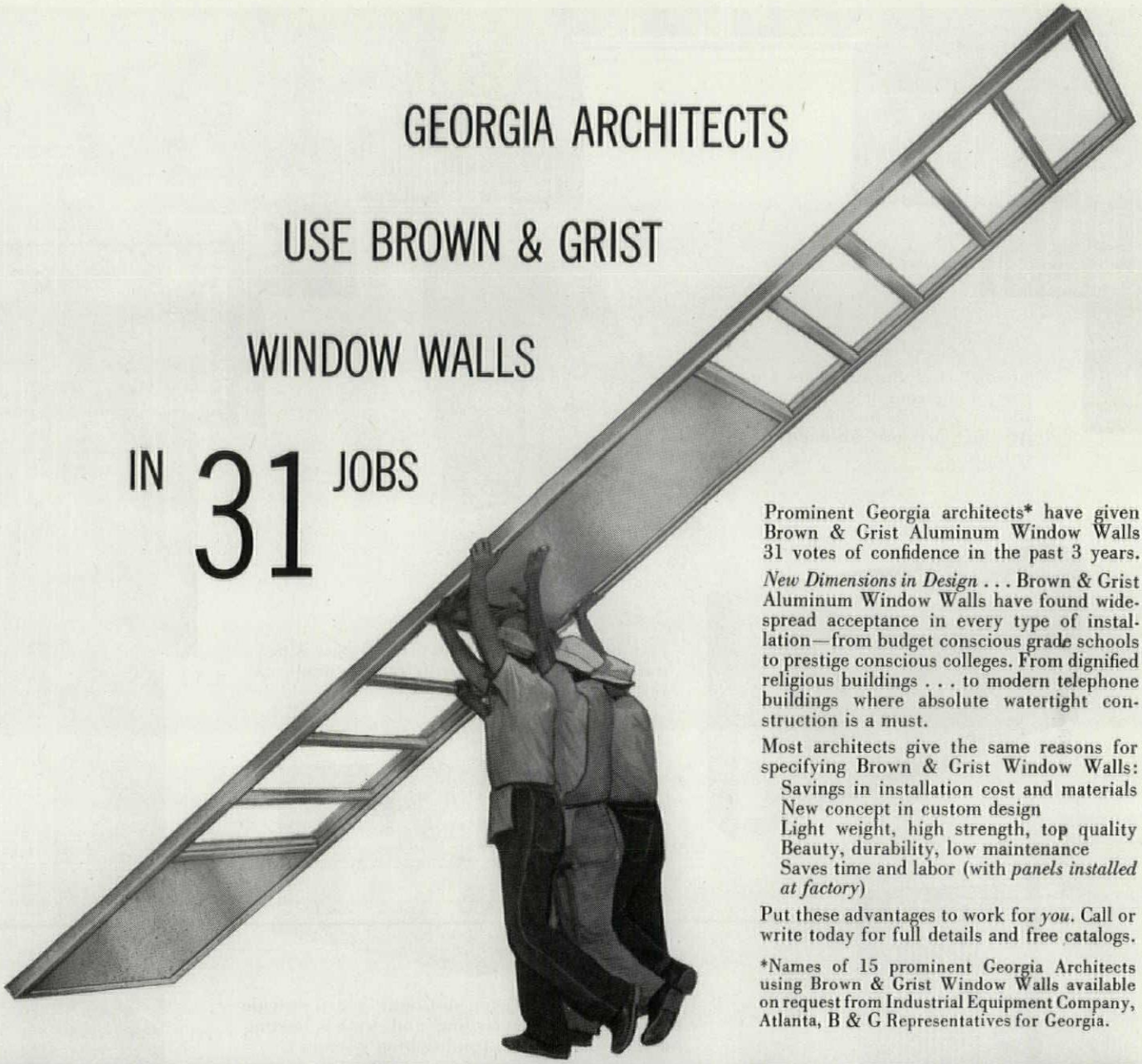
The illustrations, drawn from many periods and places, follow the same didactic arrangement as the text, which occasionally gives to oddly juxtaposed items, such as an electric iron (slickly stylish) and an Elizabethan measure (lustily primitive), a mutually anxious look. The advantage, however, of comparing the unexpected is the pleasure of a freshened vision for both. One could wish, perhaps, that Read's categories were not quite so arts-and-craftsy, with such enormous, widely diversified problems as metal housings almost an afterthought in the "metalwork" group, while the gargantuan subject of plastics becomes a postscript. This insistence on archaic groupings according to tradition and material creates some strange bedfellows, with many modern examples forced into artificial niches. The conventional craft categories have a limited place in our complex, chromium-plated- (thanks to the designer) society.

Some of Read's conclusions, however, deserve public proclamation. On a neglected basis of consumer preference: "A moment arrives . . . when there is a choice between equally efficient objects of different shape. The moment that choice has been made, an esthetic judgment has operated." On an important aspect of designer qualification: "I believe it would be found that whenever good form emerges from the factories, a designer with esthetic sensibility is always present and responsible." Although the conscientious designer today rightly emphasizes the necessity of working from the basic mechanical problem to the final visual form, there will be little real advance in design standards until he is willing and able to acknowledge this full measure of esthetic responsibility.

ADA LOUISE HUXTABLE

(Continued on page 198)

GEORGIA ARCHITECTS USE BROWN & GRIST WINDOW WALLS IN 31 JOBS



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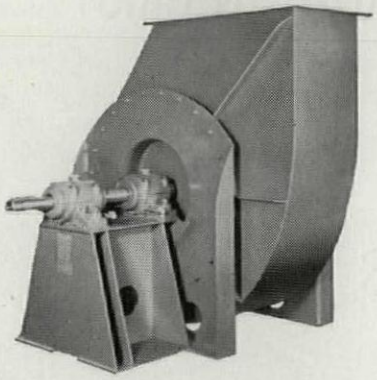
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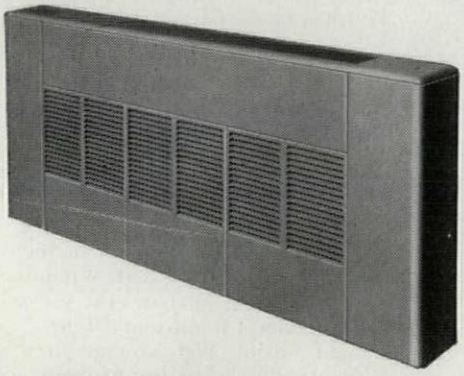
*Names of 15 prominent Georgia Architects using Brown & Grist Window Walls available on request from Industrial Equipment Company, Atlanta, B & G Representatives for Georgia.



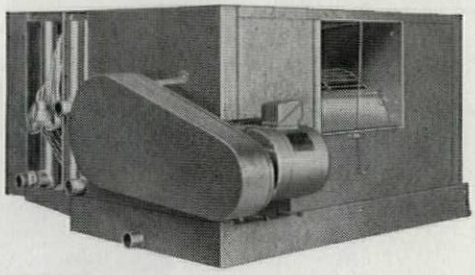
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Sirocco® High-Pressure Fans are part of the complete American Blower package for high-velocity, high-pressure air-handling systems.

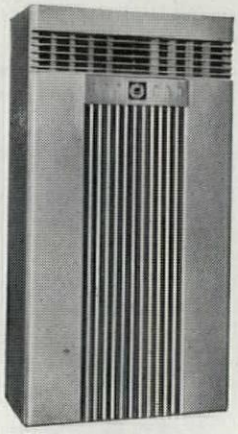




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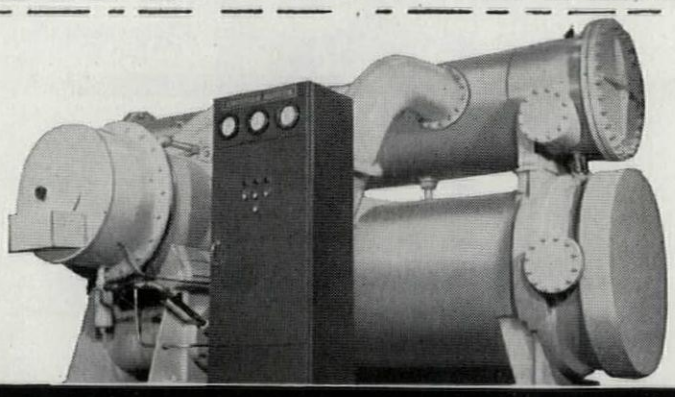


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When choosing air-conditioning equipment — for a large-scale central or zone system, or a system for a smaller store, showroom or industrial plant — it pays to select from one source. A single source pinpoints responsibility for quality, performance, delivery dates . . . saves time and money.

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American Blower's 75 years' experience as a leading producer of air-conditioning, air-handling, cooling and heating products is your guarantee of a successful installation every time, and your client's assurance of years of trouble-free air conditioning. American Blower products have proved dependable in thousands of important installations in all parts of the world.

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See our exhibit, Booths 22 and 26, at the 13th International Heating and Air Conditioning Exposition, International Amphitheater, Chicago, Illinois, February 25 through March 1, 1957.

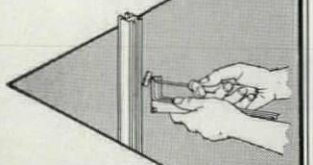
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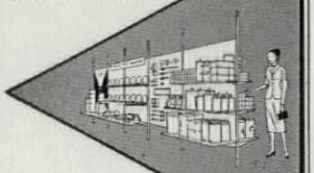
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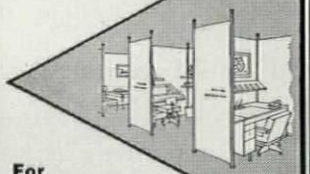
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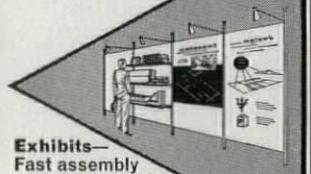
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reviews

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Aluminum in Modern Architecture. *Volume I by John Peter and Associate Editor Edward A. Hamilton; Volume II by Paul Weidlinger; produced by John Peter Associates. Reynolds Metals Company, Louisville, Ky., 1956. 658 pp., illus., $25.00 per set (singly: Volume I, $10; Volume II, $17.50). Distributed by Reinhold Publishing Corp., 430 Park Ave., New York 22, N. Y.*

This monumental two-volume work—over three years in preparation—covers every conceivable use of aluminum in contemporary architecture. For the sheer amount of endeavor involved, this study deserves highest praise; that it has also resulted in a handsome and immensely valuable addition to the architect's library makes it even more deserving of commendation.

In the first volume, 101 buildings are shown from the postwar period. Only the finest examples of contemporary architecture have been selected from both the eastern and western hemispheres. All projects—whether factories, offices, residences, schools, churches, or others—evidence some use, major or minor, of aluminum as an element of their design. The editors have assembled an excellent photographic documentation and have developed a significant amount of text and related captions—all styled in an eye-appealing format. Most of the photos have generous proportions. Concluding the first volume are excerpts from tape-recorded remarks made by 26 leading present-day architects who commented informally on the place of aluminum and the future of architecture.

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(Continued on page 200)

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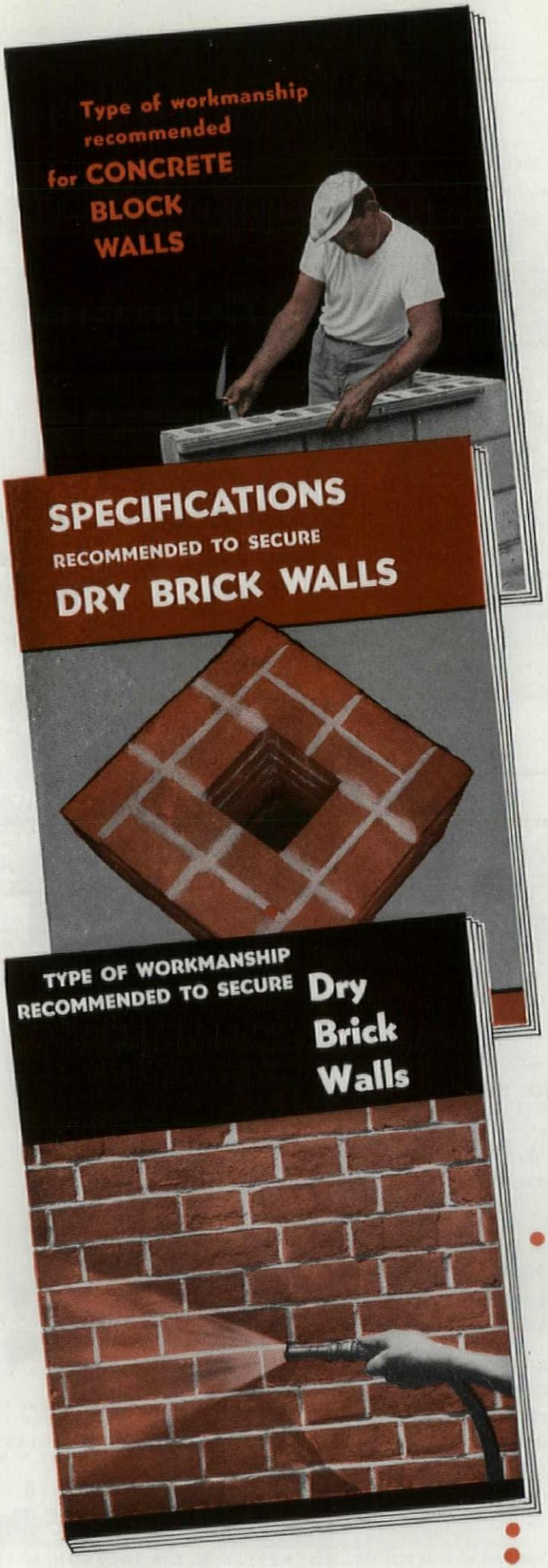
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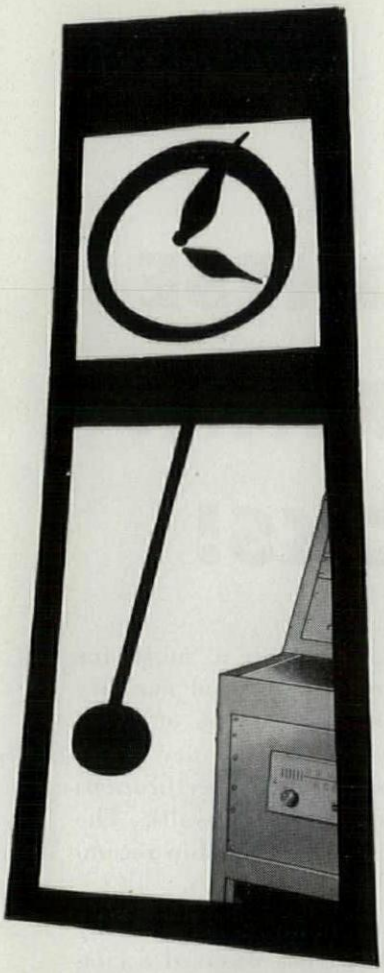
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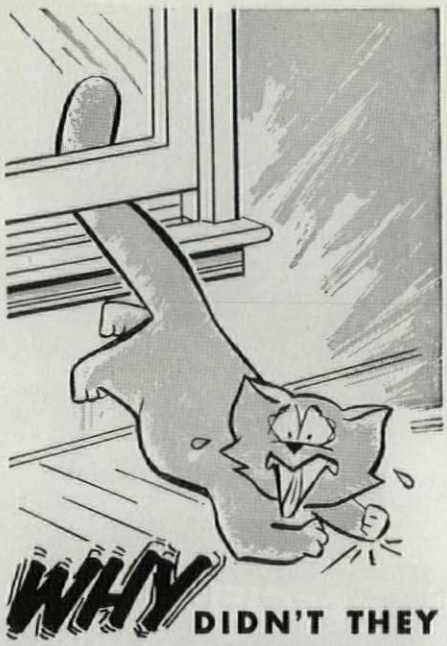
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(Continued on page 202)



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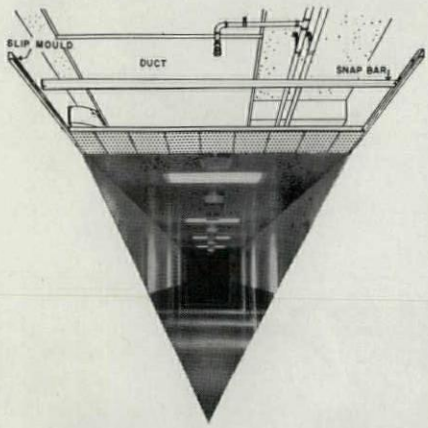
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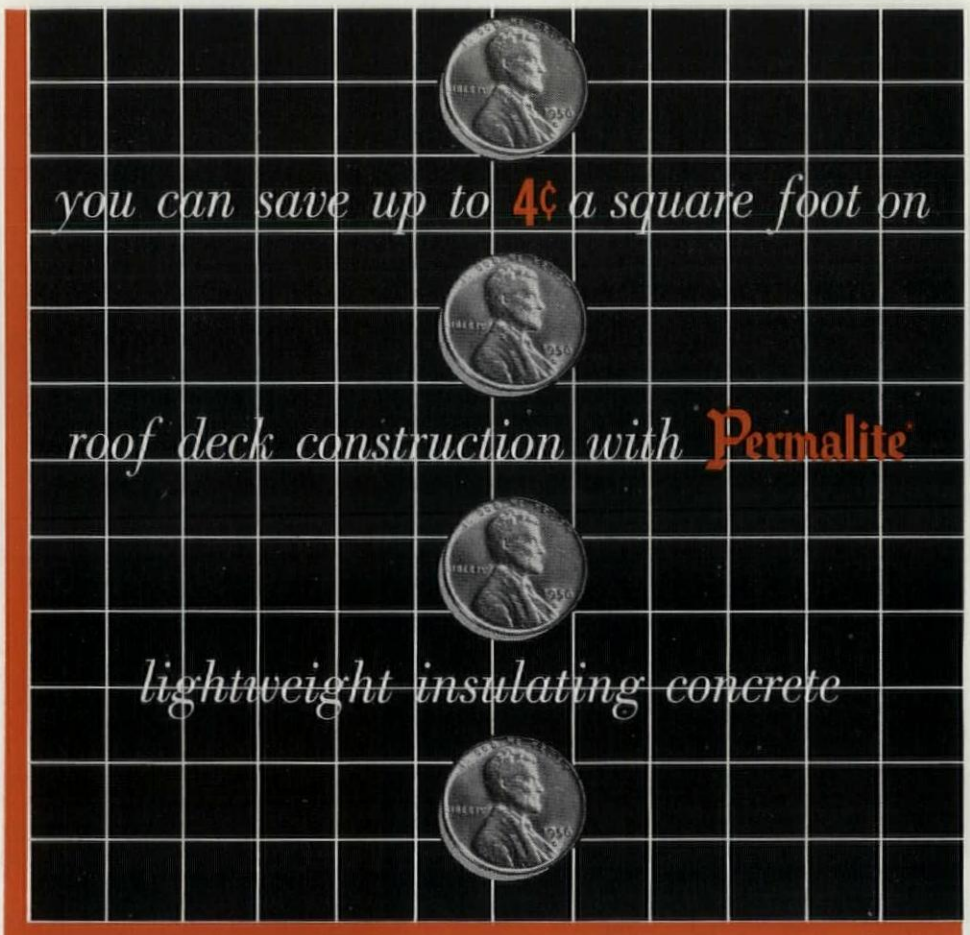
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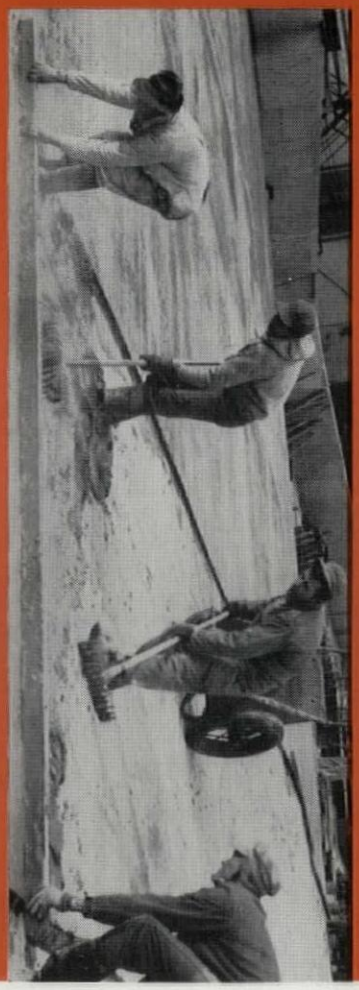
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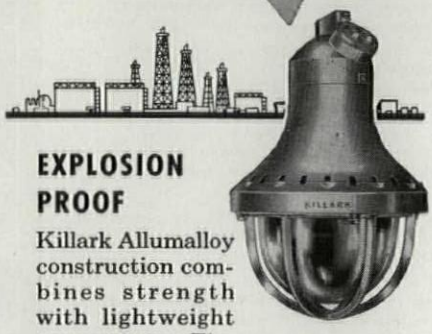
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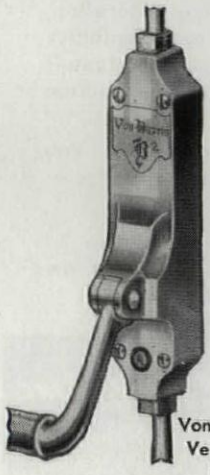
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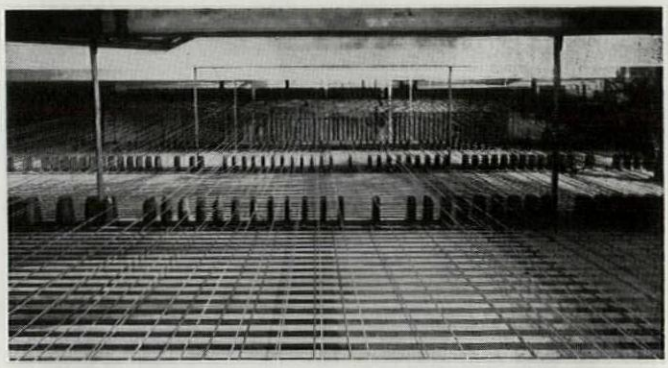
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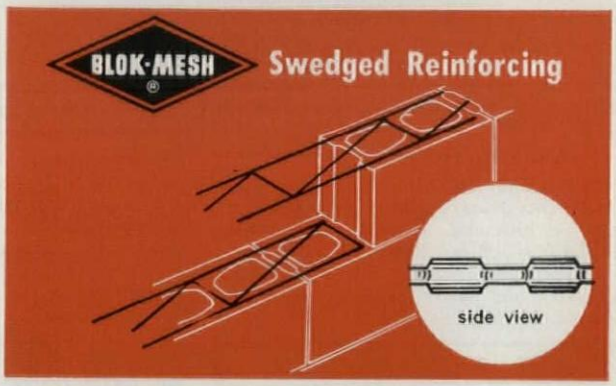


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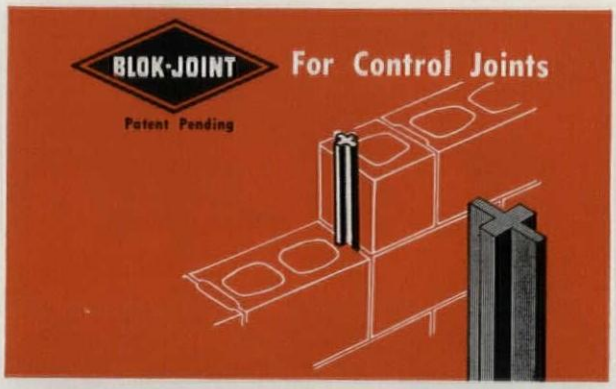
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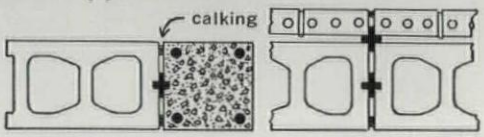
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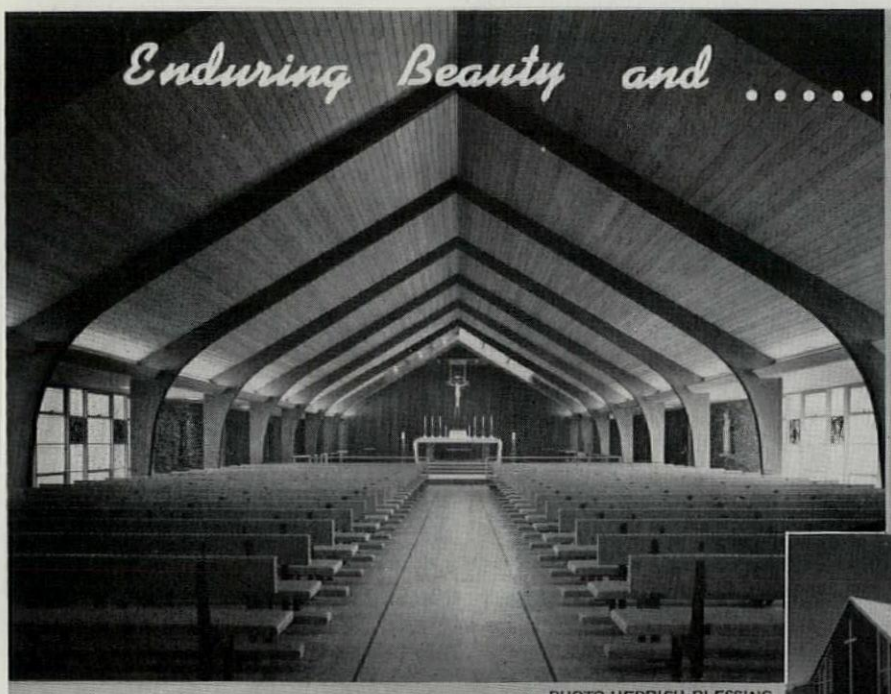
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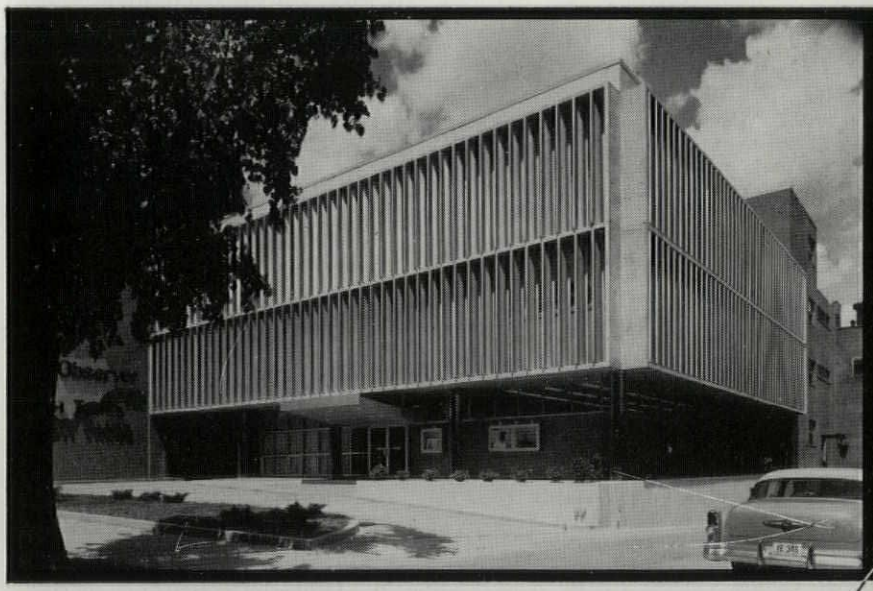
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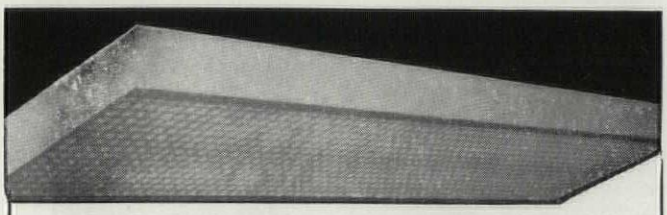
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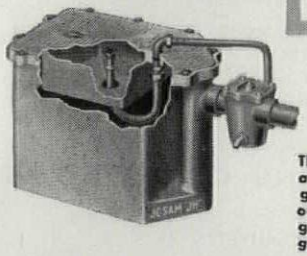
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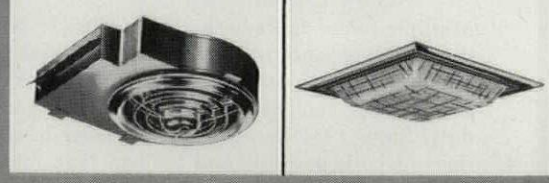
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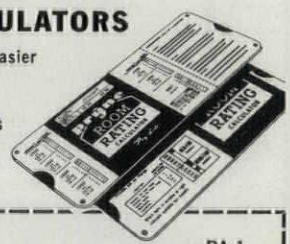
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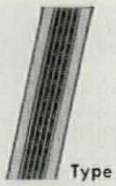


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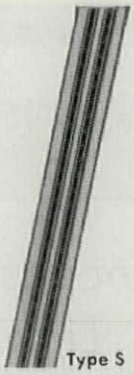
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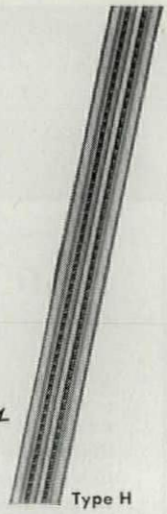


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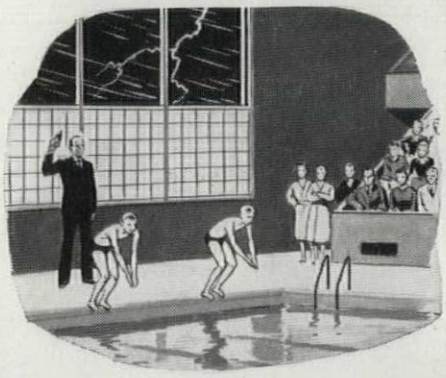
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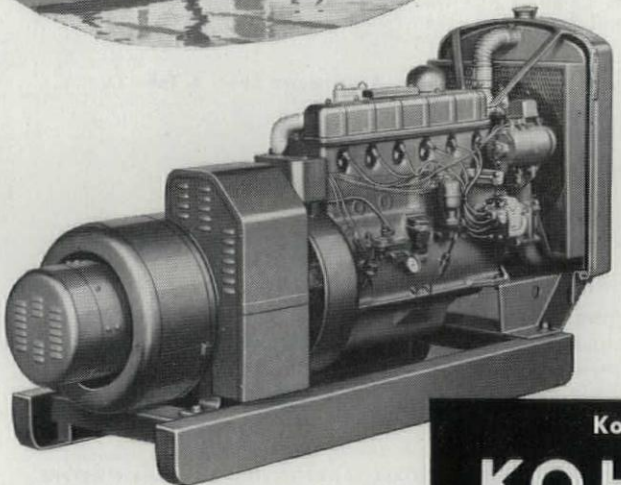
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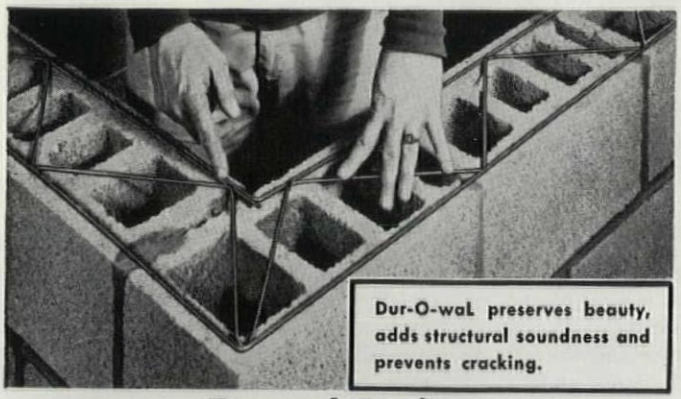
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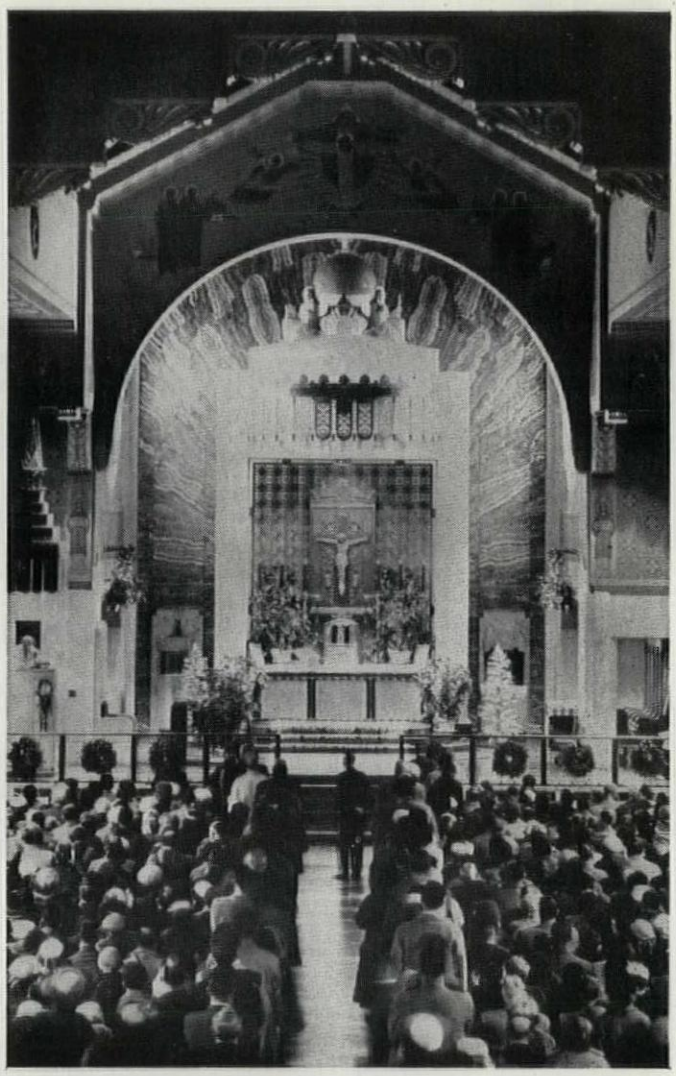
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Design Awards Jury

If, having looked at the projects illustrated in this issue, one feels that the thesis outlined in the PROLOGUE on page 88 is valid—that there is a continuing school of "austerity" in design, and at the same time a growing desire for sensuous shapes and emotion-producing forms; and that one seems to be a withdrawn-from-the-community approach and the other an expression-of-community-responses approach—then the question remains: what is being "expressed" by this new trend?

I suspect that it is an emotionalism in society itself that is being brought to the surface. The *mood of the community* (using the word community in its broadest definition) today seems responsive to a free-flowing expression which appeals, through the senses, to the emotions. Whether this can be explained as a desire for release from the tensions of the international situation, as a need for relaxation from worries caused by the greatest business-mindedness of any community since Carthage, or whatever, there are too many indications for them to be ignored, that our materialistic 20th Century is welcoming, as a kind of relief, *emotional and sensuous* responses to things. You can tick off the symptoms from the lowest level of expression—the rage for Elvis Presley and Jimmie Dean; the leather-jacketed Wild Ones, with their new and peculiar knighthood of the streets—to higher level indications such as the great turn to the churches, astonishing the sociologists and even the religionists, who had expected nothing less than they expected that, in our materialistic community.

In architecture, there seems to be an obvious, restless search on the part of many talented people in many parts of the country, for plasticity and an expression which has an emotional, rather than a withdrawn intellectual impact. If this search is related to a similar restlessness and an urge toward similar approaches and responses on the part of the community at large, then it is *expressive*. It is, as architecture should be, a physical expression, a three-dimensional distillation, through the medium of a creative person, of the seething, perhaps undefined characteristics of the community.

If the undulating roof lines, the textured wall screenings, the plastic structural forms, the three-dimensional surfaces, can be explained in this way, they also have their more practical, immediate rationale. The technical justification is appealing: plastic materials, from reinforced concrete to sprayed-on substances make plastic forms *possible*. A new understanding of structural analysis by people like Candela makes plastic expressions more *reasonable*. Desires to control the temperature and the climate make irregular roof forms and multi-dimensional surfacings *appealing*. The functional rationale is equally tempting; the flexibility we demand today in buildings of almost all types makes the hung roof, the hyperbolic-parabaloid umbrella, the space frame, the ribbed membrane structure very sensible for subdivide-at-will planning.

This sensuous plasticity has great dangers, because in the hands of many it can be very corny, very cute, or very ugly. In the hands of others, too eager, too self-conscious, it can lead to further intellectual rationalization and become quickly an arbitrary style. With the great talent that we have at our disposal, today preciousness becomes a real danger . . . whether it manifests itself as a New Romanticism, a New Palladianism, a New Empiricism, a New Brutalism, or what have you (the word New tagged to all these self-conscious moves indicates to me a paucity of imagination; here is no great joy in creation, but a backward-thinking introspection). I should hate to hear the more plastic approach to design called the New Emotionalism, but I suppose it will be.

There is another danger; let's face the fact that a plastic expression of a total building or large elements of buildings requires a sculptural understanding that not many architects possess. Very frankly, there was a number of "plastic" or "emotional" projects submitted in the Design Awards Program this year by first-rate architects, in which the sculptural forms (in my opinion as well as that of the Jury) just did not come off as sculpture. The schools may have to train their students more in that direction; and architects will have to learn to work more closely with sculptors, not for the addition of individual pieces to a completed design, but in close consultation from the very beginning of the design conception.

However, with all its dangers, it seems to me that the inevitable drive to *express the mood of the community* must lead in this direction, or lead us into much more risky fields. There has been apparent for some time a sneaking desire on the part of some to lead us back to traditionalism, to copying, and perhaps to "modernizing." We thought, I believe, that we had passed that stage, but perhaps the danger still lurks. I won't take the time to argue against it; surely the cultural stultification resulting from copyism rather than original creation is obvious. But eclecticism as a philosophy of design is still appealing to some artists, and all too often to the non-artist.

Some of our articulate people are solid and subtle arguers, usually by indirection (poking fun at the Pampulha Chapel, for example) for a return to the "old established principles." Russel Llynes has used the pages of *Harpers* from time to time for amusing attacks on the weakest defenses of contemporary design. And recently Henry Hope Reed, who is usually identified as a "writer on architecture" or a "lecturer," has had space in several popular organs of opinion to express his longing for the beauty of the traditional. Recently, writing on church architecture, he said, "it is an error to restrict architecture to a purely intellectual frame when it has supremely sensuous aspects. In truth, progress in architecture, because it is an art, lies in adapting traditional ornament to today's uses, always recognizing that the visual is essential to the fabric."

This is a dangerous point of view, utilizing cleverly the community's yearning for "sensuous" design, to call for adapted traditional ornament. I think we are beginning to find a sensuousity that has more emotional appeal to today's community—and certainly is a more complete approach to self-expression for the architect—than "adapting traditional ornament."

If the argument developed in the PROLOGUE and the POSTSCRIPT to this issue is correct, there is certainly no cause for discouragement on the part of today's architects. Architectonic discipline can be found in Yamasaki's work, and in Schweikher's; there is room for further growth at both extremes of what we see here; and the First Design Award project—the George Washington Carver High School of Curtis & Davis—seems to me to have both the formal simplicity of arrangement which has become a characteristic of our time, and a sensuosity in the forms of the individual units that has much of the appeal of the new "emotional" expression. We feel that design prospects this year, as forecast in this issue, are encouraging, even exciting. We hope that you agree.

Thomas H. Creighton